

PINE ACRES LAKE DAM REHABILITATION PROJECT

MARCH, 2021
HAMPTON, CONNECTICUT

NID #: CT00669

STATE ID #: 6302

DAM OWNER AND OPERATOR

CONNECTICUT DEPARTMENT
OF ENERGY AND ENVIRONMENTAL
PROTECTION (CT DEEP)
79 ELM STREET
HARTFORD, CT, 06106

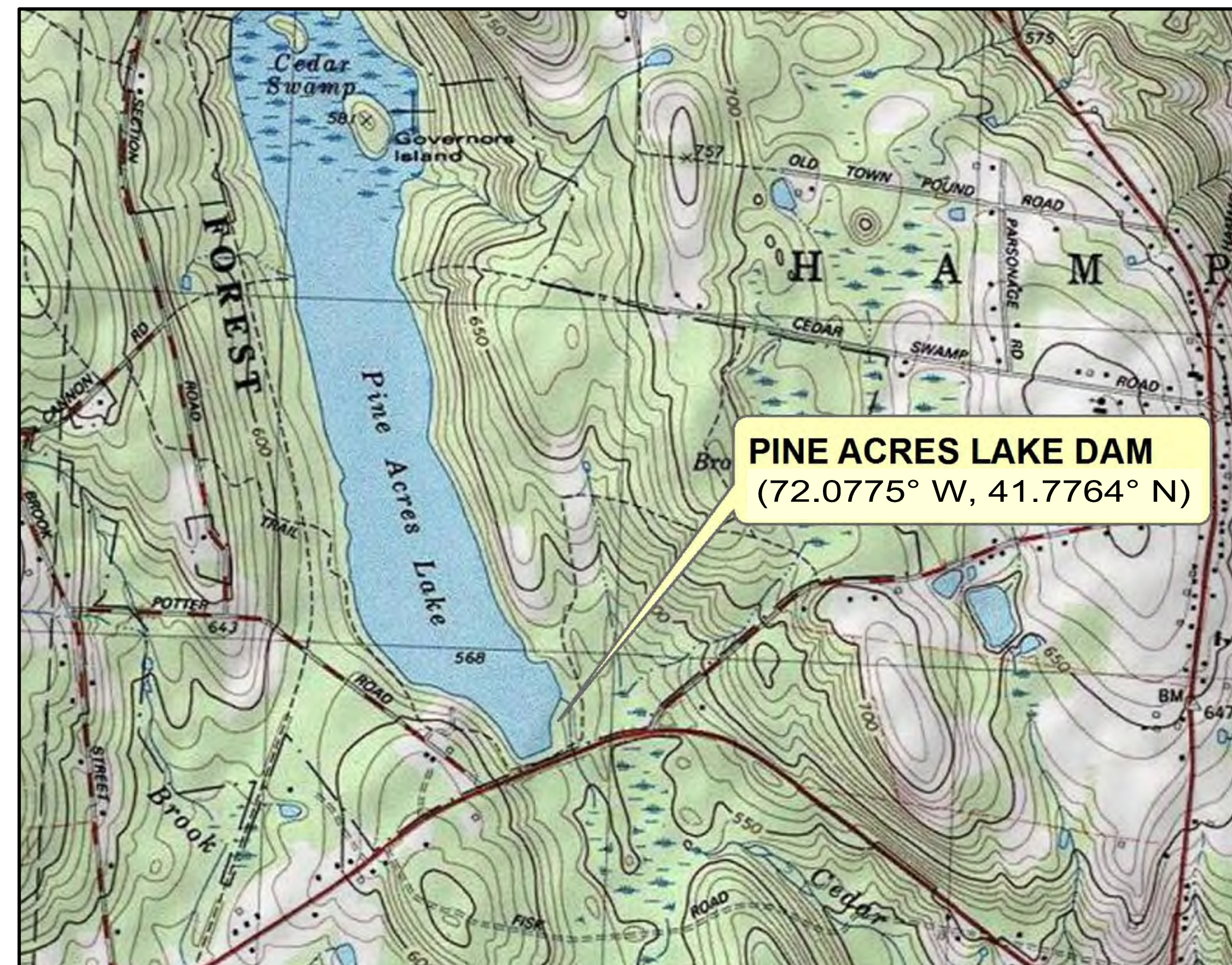


PROJECT ENGINEER

GZA GEOENVIRONMENTAL, INC.
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NORWOOD, MASSACHUSETTS, 02062

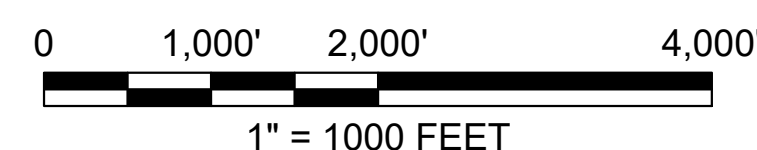


0" 1"
BAR IS ONE INCH ON
ORIGINAL DRAWING



PROJECT LOCUS MAP

SOURCE: THIS MAP CONTAINS THE ESRI ARCGIS ONLINE USA
TOPOGRAPHIC MAP SERVICE, PUBLISHED DECEMBER 2009 BY
ERSI RCIMS SERVICES. LAST UPDATED MARCH 2014.



NOTE:
ALL SCALES APPLICABLE FOR 22" X 34" DRAWINGS.



BID DRAWINGS

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4	CT DEEP COMMENT UPDATES (REV 3)	JMC	APRIL 2020
3	CT DEEP COMMENT UPDATES (REV 2)	CBN	JULY 2019
2	CT DEEP COMMENT UPDATES	CBN	APR 2018
1	ISSUED FOR PERMITTING	CBN	NOV 2017
NO.	ISSUE/DESCRIPTION	BY	DATE

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APPROVED: PE-STAMP		PINE ACRES LAKE DAM REHABILITATION PROJECT HAMPTON, CONNECTICUT	
		TITLE SHEET, SITE LOCUS, AND INDEX OF DRAWINGS	
PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: CT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION	
PROJ MGR: TEM	REVIEWED BY: JPG	CHECKED BY: WHH	FIGURE G1
DESIGNED BY: CBN/JMC	DRAWN BY: CRB	SCALE: AS NOTED	
DATE: MARCH, 2021	PROJECT NO: 01.0172972.00	REVISION NO:	

PROJECT PURPOSE

PINE ACRES LAKE DAM CONSISTS OF AN APPROXIMATELY 9 FOOT HIGH EARTHEN EMBANKMENT WITH A CONCRETE PRIMARY SPILLWAY AND A CONCRETE AND MASONRY AUXILIARY SPILLWAY. THE NEED FOR THE REPAIRS IS TO ADDRESS STRUCTURAL AND HYDRAULIC DEFICIENCIES AT THE DAM AND TO IMPROVE PUBLIC SAFETY. DEFICIENCIES WHICH WILL BE ADDRESSED IN THE DAM REPAIRS INCLUDE:

- REGRADEING OF TOP OF DAM AND SLOPES
- PLACEMENT OF EROSION PROTECTION AT THE UPSTREAM SLOPE
- PROTECTION OF TOP OF DAM, SLOPE, AND DOWNSTREAM TOE FOR OVERTOPPING FLOW (DURING PROJECT DESIGN FLOOD EVENT)
- RECONSTRUCTION OF AUXILIARY SPILLWAY
- INCREASING THE HEIGHT OF THE PRIMARY SPILLWAY TRAINING WALLS
- INSTALLATION OF NEW TOE DRAIN FOR SEEPAGE CONTROL
- INSTALLATION OF NEW SLIDE GATE AND STOP LOGS AT PRIMARY SPILLWAY
- NEW BRIDGES SPANNING THE AUXILIARY SPILLWAY AND PRIMARY SPILLWAY

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK NEEDED TO ACHIEVE FINAL CONDITIONS AS SHOWN ON THE PLANS AND AS STATED IN THE SPECIFICATIONS.

PLAN REFERENCES

1. ELEVATIONS, IN FEET, ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (HEREAFTER REFERRED TO AS NAVD88).
2. BASE MAP DEVELOPED FROM TOPOGRAPHIC SURVEY PERFORMED BY WILLIAM J. POOLE OF GM2 ASSOCIATES ON OCTOBER 13, 2016.
3. WETLANDS AT THE SITE WERE DELINEATED BY PAUL DAVIS, A CERTIFIED PROFESSIONAL SOIL SCIENTIST (CPSS), FROM GZA GEOENVIRONMENTAL, INC. WHO CONDUCTED A SITE VISIT ON OCTOBER 7, 2016. THE WETLAND DELINEATION WAS PERFORMED IN ACCORDANCE WITH THE 1987 CORPS OF ENGINEERS WETLAND DELINEATION METHOD IN CONJUNCTION WITH THE 2012 REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL AND THE 2016 NATIONAL WETLAND PLANT LIST.
4. BATHYMETRIC SURVEY INFORMATION USED SUPPLEMENTAL FORM "CT GIS CLIP - AERIAL WITH 2 FT. CONTOURS AND BATHYMETRY.PNG", AND IS FOR REFERENCE ONLY. GZA MAKES NO GUARANTEE IN REGARDS TO THE ACCURACY OF THIS INFORMATION.

GENERAL NOTES AND CONDITIONS

1. LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE ONLY, AND ARE NOT WARRANTED TO BE CORRECT. ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT INDICATED ON THESE PLANS. ALL EXISTING UTILITIES SHALL BE VERIFIED FOR SERVICE, SIZE, INVERT ELEVATION, LOCATION, ETC. PRIOR TO ANY CONSTRUCTION WORK IN THE VICINITY THEREOF. THE CONTRACTOR MUST NOTIFY CBYD (CALL BEFORE YOU DIG) (PHONE NUMBER: 811) AT LEAST 2 FULL WORKING DAYS PRIOR TO ANY CONSTRUCTION. APPROPRIATE MUNICIPAL DEPARTMENTS MUST ALSO BE NOTIFIED. NOTIFY OWNER AND ENGINEER IN WRITING OF ANY AND ALL DISCREPANCIES PRIOR TO COMMENCING WORK.
2. TEMPORARY BENCHMARKS AND CONTROL POINTS WERE LOCATED OR SET BY THE SURVEYOR. NO GUARANTEE IS MADE AS TO THE EXISTENCE OR ACCURACY OF SUCH MARKS AT THE TIME OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINDING, VERIFYING, AND RE-SETTING (IF NECESSARY) CONTROL POINTS AND BENCHMARKS FOR THE WORK OF THE CONTRACT OR OTHERWISE ESTABLISHING THEIR OWN.
3. THE RESPONSIBILITY FOR SAFETY IN, ON, OR ABOUT THE JOBSITE SHALL BE THAT OF THE CONSTRUCTION CONTRACTOR. THESE DRAWINGS DO NOT INCLUDE COMPONENTS WHICH MAY BE NECESSARY FOR CONSTRUCTION SAFETY.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION, EXCEPT WHERE SPECIFICALLY DETAILED IN THE PLANS AND SPECIFICATIONS. LIKEWISE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SEQUENCE OF THE WORK, EXCEPT WHERE SPECIFICALLY DETAILED IN THE PLANS AND SPECIFICATIONS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SURFACE AND GROUNDWATER CONTROL DURING THE WORK OF THE CONTRACT. TEMPORARY WATER CONTROL MEASURES SHALL BE, AT MINIMUM, AS REQUIRED BY THE PROJECT PLANS, SPECIFICATIONS, AND PERMIT CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ADDITIONAL MEASURES NECESSARY FOR WATER CONTROL NECESSARY TO EXECUTE THE WORK OF THE CONTRACT "IN THE DRY". WATER CONTROL MEASURES ARE SUBJECT TO SPECIFIC LIMITS AND CONDITIONS AS MAY BE SHOWN ON THE PLANS AND SPECIFIED IN THE TEMPORARY WATER CONTROL SPECIFICATION 01565.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY SEDIMENT AND EROSION CONTROL DURING THE WORK OF THE CONTRACT. TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE, AT MINIMUM, AS REQUIRED BY THE PROJECT PLANS, SPECIFICATIONS, AND PERMIT CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL MEASURES NECESSARY FOR THE PREVENTION OF SEDIMENT DISCHARGE OR EROSION AT THE SITE.
7. ACCESS TO THE SITE SHALL BE FROM POTTER ROAD, THE BLUE/YELLOW TRAIL, THE BLUE/WHITE TRAIL, AND THE YELLOW TRAIL. THE CONTRACTOR SHALL BE RESPONSIBLE TO RESTORE THE CONDITION OF POTTER ROAD AND THE EFFECTED TRAILS TO THE ORIGINAL CONDITION (OR BETTER) PRIOR TO DEMOBILIZING FROM THE SITE.
8. A SPECIFIC AREA HAS BEEN DESIGNATED AND DELINEATED ON THE PLANS AS A CONTRACTOR STAGING AREA. THE CONTRACTOR SHALL USE THIS AREA, AND THIS AREA ONLY, FOR ON-SITE PARKING, OFFICE TRAILERS (IF NECESSARY), EQUIPMENT AND MATERIAL STORAGE, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY NECESSARY SIGNAGE, FENCING, SAFETY, SEDIMENT/EROSION CONTROL, IMPROVEMENTS, RESTORATIONS, ETC. IN THESE AREAS. AREAS WITHIN THE LIMITS OF THE WORK MAY BE USED FOR TEMPORARY STORAGE, HAUL, ROADS, PARKING, ETC.; HOWEVER, NO ADDITIONAL CONSIDERATIONS OR PAYMENT WILL BE MADE FOR WORK NECESSARY TO RE-GRADE AND RESTORE SUCH AREAS TO PRE-CONSTRUCTION CONDITIONS OR RELOCATE ANY MATERIALS OR EQUIPMENT TEMPORARILY STORED WITHIN THE LIMITS OF THE WORK. IF THE CONTRACTOR REQUIRES AND IDENTIFIES ADDITIONAL STAGING AREAS ON THE OWNER'S PROPERTY, THE CONTRACTOR SHALL MAKE A WRITTEN REQUEST TO THE OWNER AND ENGINEER DESCRIBING THE NEED AND LOCATION OF THE PROPOSED AREA. NO GUARANTEE IS MADE THAT ADDITIONAL LAY-DOWN AREAS WILL BE MADE AVAILABLE.
9. THE CONTRACTOR IS HEREBY MADE AWARE THAT HIKING TRAILS TRAVERSE THE DAM CREST AND DOWNSTREAM AREA. THE CONTRACTOR SHALL COORDINATE WITH THE PARK REGARDING TEMPORARY TRAVEL AND PEDESTRIAN RESTRICTIONS ON TRAILS SHOULD THE TRAILS BE EFFECTED DURING THE EXECUTION OF THE WORK. TRAILS TRAVERSING THE DAM OR THAT ARE OTHERWISE WITHIN THE LIMITS OF WORK SHALL REMAIN CLOSED DURING CONSTRUCTION.
10. THE CONTRACTOR SHALL RESTORE AREAS DISTURBED BY CONSTRUCTION AS PER THE PLANS AND SPECIFICATIONS. WHERE NO SPECIFIC INSTRUCTION IS GIVEN, RESTORATION SHALL BE TO THE ORIGINAL CONDITION OR BETTER AND AT NO ADDITIONAL COST TO THE OWNER.
11. THE CONTRACTOR IS SPECIFICALLY INFORMED THAT THE RESTORATION REQUIREMENT APPLIES TO ALL AREAS DISTURBED AS A RESULT OF THE PROJECT, INCLUDING ACCESS ROADS.
12. IN THE EVENT OF THE DISCOVERY OF THE PRESENCE OF AN ENDANGERED PLANT OR ANIMAL IN THE WORK AREA OR STAGING AREA, ALL WORK IN THE IMMEDIATE AREA OF THE FIND SHALL STOP AND THE OWNER AND ENGINEER SHALL BE NOTIFIED IMMEDIATELY. WORK IN THE IMMEDIATE AREA AND/OR THE ENTIRE SITE (AT THE DISCRETION OF THE OWNER) SHALL BE DISCONTINUED UNTIL CLEARANCE IS GRANTED BY THE OWNER.
13. IN THE EVENT OF THE DISCOVERY OF A PREVIOUSLY UNKNOWN ARCHEOLOGICAL SITE, POTENTIAL CULTURAL ARTIFACTS OR RESOURCES, OR ANY OTHER UNUSAL ITEMS OR CONDITIONS, ALL WORK IN THE IMMEDIATE AREA OF THE FIND SHALL STOP AND THE OWNER AND ENGINEER SHALL BE NOTIFIED IMMEDIATELY. WORK IN THE IMMEDIATE AREA SHALL BE DISCONTINUED UNTIL CLEARANCE IS GRANTED BY THE OWNER.
14. PRIOR TO THE START OF WORK, THE CONTRACTOR SHALL DEVELOP, SUBMIT, AND MAINTAIN AN EMERGENCY CONTACT LIST WITH NAMES AND PHONE NUMBERS (DAY AND NIGHT) OF ALL KEY PERSONNEL INVOLVED WITH THE PROJECT. THE LIST SHALL SPECIFICALLY INCLUDE THE PERSON FROM THE CONTRACTOR WHO SHALL BE RESPONSIBLE FOR ENVIRONMENTAL COMPLIANCE. THE LIST SHALL BE PROVIDED TO THE OWNER, THE PARK, ENGINEER, AND CONSERVATION COMMISSION AND UPDATED AS NEEDED.
15. IN THE EVENT OF UNANTICIPATED ENVIRONMENTAL AND/OR ARCHEOLOGICAL CONDITIONS WHICH PREVENT CONTINUED WORK, THE OWNER MAY DIRECT THE CONTRACTOR TO STOP WORK AND STABILIZE THE SITE. THE OWNER RESERVES THE RIGHT TO TERMINATE THE CONTRACT IN SUCH A CASE.
16. THE CONTRACTOR IS RESPONSIBLE FOR ALL PENALTIES AND DELAYS DUE TO NON-COMPLIANCE WITH PERMIT CONDITIONS.
17. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD.

REGULATORY STANDARDS

THE CURRENT CONNECTICUT DAM SAFETY REGULATIONS, DATED FEBRUARY 3, 2016 WERE USED AS THE GUIDELINE FOR THE REHABILITATION PROJECT DESIN.

SIZE CLASSIFICATION = SMALL | HAZARD CLASSIFICATION: B

SPILLWAY DESIGN FLOOD: 100-YEAR FLOOD

HYDROLOGY AND HYDRAULICS

PEAK 100-YEAR INFLOW: 1,080 CFS (APPROXIMATE NORMAL POOL ELEVATION: 566.2')

WATERSHED	AREA (SQUARE MILES)	CURVE NUMBER	LAG TIME (MIN)
PINE ACRES LAKE	0.23	99	6
PINE ACRES LAKE DAM WATERSHED LAND	1.41	77	122

GENERAL SCOPE AND ANTICIPATED CONSTRUCTION SEQUENCE:

THE GENERAL SCOPE OF WORK INCLUDES THE EXECUTION OF THE REPAIRS TO THE DAM AND APPURTENANCES AS PRESENTED ON THE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL MATERIAL, EQUIPMENT, AND LABOR NECESSARY TO CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AND AS SHOWN ON THE FINAL CONDITIONS PLAN. THE IS TO PROVIDE THE ANTICIPATED CONSTRUCTION SEQUENCE IS TO PROVIDE GUIDANCE TO THE CONTRACTOR TOWARDS MEETING THE TERMS AND CONDITIONS OF ENVIRONMENTAL PROTECTION PERMITS AND BEST MANAGEMENT PRACTICES (BMPs). CERTAIN ASPECTS OF THE ANTICIPATED CONSTRUCTION SEQUENCE MAY BE ALTERED BY THE CONTRACTOR WITH APPROVAL FROM THE OWNER AND ENGINEER, EXCEPT AS REQUIRED BY PERMIT CONDITIONS AND SPECIFIC INSTRUCTIONS CONTAINED IN THE SPECIFICATIONS. THE FOLLOWING LIST IS NOT COMPREHENSIVE AND DOES NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR EXECUTING ALL REQUIRED WORK AS PER THE CONTRACT PLANS AND SPECIFICATIONS.

1. MOBILIZE TO THE SITE AND DEPLOY TEMPORARY SEDIMENT AND EROSION CONTROLS ASSOCIATED WITH THE PROJECT, INCLUDING PERIMETER EROSION AND SEDIMENT CONTROL BARRIERS, AND OTHER BMPs.
2. NOTIFY OWNER, ENGINEER, AND REPRESENTATIVES FROM THE VARIOUS ENVIRONMENTAL AGENCIES HAVING JURISDICTION. SCHEDULE AND CONDUCT SITE WALK TO INSPECT SEDIMENT AND EROSION CONTROL MEASURES. MODIFY SEDIMENT AND EROSION CONTROL MEASURES AS REQUIRED. WORK MAY PROCEED ONCE APPROVAL HAS BEEN GRANTED FROM SAID ENTITIES.
3. INSTALL TEMPORARY COFFERDAM UPSTREAM OF EMBANKMENT TO SUPPORT INSTALLATION OF RIPRAP AND UPSTREAM OF AUXILIARY SPILLWAY.
4. DEMOLISH AND REMOVE EXISTING AUXILIARY SPILLWAY TRAINING WALLS, WEIR. LEGALLY DISPOSE OF DEMOLITION DEBRIS OFF-SITE. EXCAVATE AND PREPARE SUB-GRADE AND CONSTRUCT NEW REINFORCED CONCRETE TRAINING WALLS, APRONS, AND ASSOCIATED CONCRETE. INSTALL NEW SINGLE SPAN BRIDGE ACROSS AUXILIARY SPILLWAY.
5. CLEAR TREES WITHIN 25 FEET FROM THE EMBANKMENT PER CT DAM SAFETY REGULATIONS. REMOVE STUMPS AND ROOT BALLS WITHIN 25-FEET OF THE PROPOSED EMBANKMENT TOE EXTENDING TO THE LIMIT OF CLEARING.
6. STRIP AND STOCKPILE TOP SOIL FROM EMBANKMENT AND WORK AREAS. STRIP AND STOCKPILE RIPRAP, FILL RESULTING VOIDS FROM UPSTREAM AND DOWNSTREAM SLOPES AS NECESSARY.
7. REGRADE CREST OF DAM TO PROVIDE AN EVEN TOP OF DAM AND PLACE AND COMPACTED FILL AT DOWNSTREAM SLOPE TO PROVIDE A 2.5H:1V (MINIMUM) DOWNSTREAM SLOPE.
8. REMOVE, RESET AND INSTALL SUPPLEMENTAL RIPRAP SLOPE PROTECTION AT UPSTREAM SLOPE OF DAM.
9. AFTER COMPLETION OF THE AUXILIARY SPILLWAY WORK, REMOVE TEMPORARY COFFERDAM. REINSTALL COFFERDAM UPSTREAM OF THE PRIMARY SPILLWAY. LAKE INFLOW WILL BE PIPIED THROUGH THE WORK AREA VIA PUMPING OR GRAVITY FLOW THROUGH THE LOW LEVEL OUTLET. THE NEWLY RECONSTRUCTED AUXILIARY SPILLWAY MAY SERVE TO PASS FLOWS DURING HEAVY RAINS.

10. DEWATER BETWEEN THE COFFERDAM AND PRIMARY SPILLWAY.
11. REMOVE ACCUMULATED VEGETATION, SEDIMENT, AND EXISTING BRIDGE AT THE PRIMARY SPILLWAY. LEGALLY DISPOSE OF DEBRIS OFF-SITE.
12. REMOVE EXISTING SLIDE GATE AND OPERATOR AND REPLACE WITH NEW SLIDE GATE AND OPERATOR. REHABILITATE AND REPAIR CONCRETE WEIR FOR INSTALLATION OF NEW SLIDE GATE. INSTALL NEW ALUMINUM STOP LOGS AND GUIDES TO REPLACE EXISTING TIMBER STOP LOGS.
13. DRILL AND INSTALL STEEL DOWELS AND PLACE NEW REINFORCED CONCRETE TO RAISE EXISTING PRIMARY SPILLWAY CONCRETE TRAINING WALLS.
14. INSTALL NEW TRASH RACK AT UPSTREAM SIDE OF PRIMARY SPILLWAY.
15. INSTALL NEW WOODEN BRIDGE ACROSS THE PRIMARY SPILLWAY.
16. EXCAVATE AND INSTALL NEW TOE-DRAIN AT DOWNSTREAM EMBANKMENT TOE WITH MINIMUM 1 % SLOPE.
17. PLACE LOAM AND SEED AND INSTALL TURF REINFORCEMENT MATS (TRM) ON DOWNSTREAM SLOPE OF DAM EMBANKMENT, EXTENDING 10 FEET BEYOND TOE, FOR OVERTOPPING PROTECTION. 6 INCHES OF SAND GRAVEL FILL BELOW 6 INCHES LOAM AND SEED SHALL BE PLACED AT THE CREST FOR EROSION PROTECTION.
18. NOTIFY OWNER, ENGINEER, AND ENVIRONMENTAL PERSONNEL HAVING JURISDICTION OF PROPOSED STABILIZATION. SCHEDULE AND CONDUCT SITE INSPECTION.
19. UPON APPROVAL, REMOVE COFFERDAM, ALL PERIMETER SEDIMENT, AND SITE ACCESS CONTROLS.
20. LOAM AND SEED ALL DISTURBED AREAS OR LOCATIONS WHERE GRASS COVER IS SPECIFIED.
21. COMPLETE DEMOBILIZATION, REPAIR ACCESS ROADS AND TRAILS TO PRECONSTRUCTION CONDITION OR BETTER.

WATER CONTROL NOTES

1. TEMPORARY WATER CONTROL BY THE CONTRACTOR SHALL BE PERFORMED AS SPECIFIED IN THE CONTRACT DOCUMENTS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY WATER CONTROL, SURFACE WATER AND GROUNDWATER CONTROL, NECESSARY TO EXECUTE AND COMPLETE THE WORK OF THE CONTRACT SUBJECT TO THE RESTRICTIONS CONTAINED IN THE CONTRACT AND PROJECT PERMITS. CONTROLS SHOWN IN THE CONTRACT DRAWINGS AND MENTIONED IN THE TECHNICAL SPECIFICATIONS SHALL BE CONSIDERED MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL EMPLOY WHATEVER SUPPLEMENTARY MEASURES NECESSARY TO PROTECT THE SITE AND THE WORK.
3. ALL TEMPORARY WATER CONTROL MEASURES SHALL BE IMPLEMENTED IN CONJUNCTION WITH APPROPRIATE SEDIMENT AND EROSION CONTROL MEASURES SO AS TO MINIMIZE TO THE GREATEST EXTENT POSSIBLE RELEASE OF SEDIMENT INTO WATER BODIES AND POTENTIAL EROSION OF SOIL.
4. THE CONTRACTOR IS HEREBY NOTIFIED THAT STRICT ADHERENCE TO THE WATER CONTROL CONDITIONS AND LIMITATIONS AND USE OF BEST MANAGEMENT PRACTICES IS CRITICAL TO PREVENT POSSIBLE IMPACTS TO SENSITIVE ENVIRONMENTAL AREAS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION AND SUBMISSION OF A CONSTRUCTION-PHASE FLOOD CONTROL/ EMERGENCY RESPONSE PLAN PRIOR TO BEGINNING WORK ITEMS REQUIRING WATER CONTROL.
6. ANY TEMPORARY PUMPS USED AT THE SITE MUST BE PROPERLY BAFFLED AGAINST EXCESSIVE NOISE. PUMPS OR GENERATORS WHICH USE LIQUID FUEL MUST BE PLACED WITHIN AN IMPERMEABLE SECONDARY CONTAINMENT AREA WITH SUFFICIENT CAPACITY TO CONTAIN THE FULL VOLUME OF THE FUEL TANK.
7. WATER PUMPED FROM THE EXCAVATIONS MUST BE PASSED THROUGH A PUMPED WATER FILTER BAG OR OTHER SUCH BEST MANAGEMENT PRACTICE FEATURE PRIOR TO BEING DISCHARGED BACK TO A SURFACE WATER BODY. DISCHARGE WATER SHALL MEET APPROPRIATE WATER QUALITY STANDARDS.
8. PUMPED WATER DISCHARGE AREAS MUST BE PROPERLY PROTECTED TO PREVENT EROSION BY HIGH VELOCITY FLOW.

EROSION AND SEDIMENTATION CONTROL NOTES

1. TEMPORARY CONTROL OF EROSION AND SEDIMENT DISCHARGE IS REQUIRED THROUGHOUT THE DURATION OF THE PROJECT AND UNTIL PROPOSED STABILIZATION IS ACHIEVED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT THE AREAS WITHIN THE LIMITS OF WORK AND BEYOND FROM SEDIMENT AND/OR POLLUTANTS ORIGINATING FROM ANY WORK DONE ON OR IN SUPPORT OF THE PROJECT, INCLUDING SEDIMENT DUE TO EROSION FROM STORMWATER RUNOFF.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES NECESSARY TO EXECUTE AND COMPLETE THE WORK OF THE CONTRACT, IN COMPLIANCE WITH THE TERMS AND CONDITIONS CONTAINED IN THE CONTRACT, PROJECT PERMITS AND ALL STATE AND LOCAL ORDINANCES THAT APPLY. CONTROLS SHOWN ON THE CONTRACT DRAWINGS SHALL BE CONSIDERED MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL EMPLOY WHATEVER SUPPLEMENTARY MEASURES NECESSARY TO PROTECT WETLANDS, WATER, AND ADJACENT AREAS FROM DISTURBANCE OR DISCHARGE OF SEDIMENTS.
3. THE CONTRACTOR SHALL NOT DISTURB VEGETATED AREAS OUTSIDE OF THE WORK ZONE, EXCEPT TO THE MINIMUM EXTENT NECESSARY FOR ACCESS AND ACCOMPLISHMENT OF THE WORK SHOWN.
4. ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO PREVENT MIGRATION INTO WATER BY SILT, SEDIMENT, FUELS, SOLVENTS, LUBRICANTS, CONCRETE, OR ANY OTHER POLLUTANTS ASSOCIATED WITH CONSTRUCTION PROCEDURES.
5. ACTUAL LOCATION OF EROSION CONTROLS AND BEST MANAGEMENT PRACTICES MAY VARY DUE TO FIELD CHANGES, ONGOING CONSTRUCTION, ACCESS NEEDS, WEATHER, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING THESE CHANGES AND ADJUSTING EROSION CONTROLS AND BMP LOCATIONS ACCORDINGLY. IN PARTICULAR, THE CONTRACTOR SHALL COORDINATE THE INSTALLATION AND RELOCATION OF BMPs WITH PROJECT PHASING, AS NECESSARY.
6. ALL EROSION CONTROLS AND BMPs SHALL REMAIN IN PLACE, EXCEPT AS OTHERWISE NECESSARY, UNTIL CONSTRUCTION IS COMPLETED AND PROPOSED STABILIZATION IS ACHIEVED.
7. EXCAVATED MATERIALS SUSPECTED OF CONTAMINATION SHALL BE SEPARATED AND STOCKPILED ON-SITE FOR EVALUATION BY THE ENGINEER.
8. ADDITIONAL EROSION CONTROL BARRIERS SHALL BE INSTALLED AT THE DIRECTION OF THE ENGINEER TO MINIMIZE THE THREAT OF ADVERSE IMPACT DURING THE CONSTRUCTION PROCESS. AN ADEQUATE SUPPLY OF REPLACEMENT EROSION CONTROL BARRIERS WILL BE AVAILABLE ON-SITE FOR EMERGENCY PURPOSES.
9. SEDIMENT AND EROSION CONTROLS AND BMPs SHALL BE INSTALLED PRIOR TO COMMENCING CONSTRUCTION AT THE SITE. NO WORK WHICH SHALL DISTURB THE SITE OR CREATE THE POTENTIAL FOR SEDIMENT RELEASE SHALL COMMENCE UNTIL THE SEDIMENT AND EROSION CONTROLS HAVE BEEN INSPECTED AND APPROVED BY THE OWNER AND ENGINEER. ALL CONTROLS AND BMPs SHALL BE SUBJECT TO INSPECTION BY THE OWNER AND HIS REPRESENTATIVE AT ANYTIME THEREAFTER.
10. PERIODIC INSPECTION, MAINTENANCE, AND CLEANING OF TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AND BMPs ARE REQUIRED. ALL CONTROLS AND BMPs SHALL BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF RAINFALL EVENTS OF 0.5 INCHES OR GREATER. ROUTINE INSPECTION AND MAINTENANCE WILL REDUCE THE CHANCE OF POLLUTING STORMWATER BY FINDING AND CORRECTING PROBLEMS BEFORE THE NEXT RAIN EVENT. THE CONTRACTOR WILL BE REQUIRED TO KEEP A WRITTEN, UPDATED SITE MAINTENANCE LOG DOCUMENTING INSPECTION AND MAINTENANCE ACTIVITY.
11. REPORTING AND RECORD KEEPING: IN ADDITION TO THE AFOREMENTIONED INSPECTION AND MAINTENANCE PROCEDURES, THE CONTRACTOR IS TO KEEP A RECORD OF THE FOLLOWING INFORMATION:
 - THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR IN A PARTICULAR AREA;
 - THE DATES WHEN CONSTRUCTION ACTIVITIES CEASE IN AN AREA, TEMPORARILY OR PERMANENTLY;
 - THE DATES WHEN AN AREA IS STABILIZED, TEMPORARILY OR PERMANENTLY;
 - A COPY OF THE STORM WATER POLLUTION CONTROL PLAN (SWPCP) AND ALL REPORTS GENERATED DURING CONSTRUCTION ACTIVITIES ARE TO BE RETAINED AS REQUIRED BY REGULATION.

12. SITE CLEARING: PRIOR TO ANY SITE CLEARING ACTIVITIES, SEDIMENT CONTROL BARRIERS SHALL BE INSTALLED AS INDICATED ON THE PLANS. ALONG THE OUTER LIMIT OF DISTURBANCE, DISTURBED AREAS ARE TO BE KEPT TO A MINIMUM. NO CLEARING IS ALLOWED OUTSIDE THE WORK AREA WITHOUT PRIOR APPROVAL FROM THE OWNER.
13. SEDIMENT CONTROL BARRIERS: SEDIMENT CONTROL BARRIERS ARE INTENDED TO TRAP SEDIMENT TRANSPORTED BY RUNOFF BEFORE IT REACHES THE DRAINAGE FEATURES, WATER BODIES, OR WETLANDS, IN ADDITION TO AREAS WHERE HIGH RUNOFF VELOCITIES OR HIGH SEDIMENT LOADS ARE EXPECTED. SAID CONTROLS ARE TO BE REPLACED AS NEEDED AS DETERMINED BY PERIODIC FIELD INSPECTIONS.
14. DUST CONTROL: DUST CONTROL SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS.
15. STAGING AREA: THE CONTRACTOR MAY ESTABLISH LAY DOWN AND STAGING AREAS IN WHICH TO STORE EQUIPMENT AND MATERIALS ONLY IN THOSE AREAS SPECIFICALLY INDICATED ON THE CONTRACT DRAWINGS OR SPECIFICATIONS OR AS DIRECTED BY THE OWNER. LOCATION OR ADDITIONAL AREAS, IF NEEDED, SHALL BE COORDINATED WITH AND SHALL BE SUBJECT TO APPROVAL BY THE OWNER. STAGING AREAS SHALL BE ENCIRCLED WITH SEDIMENT/EROSION CONTROL BARRIERS AS APPROPRIATE. STAGING AREAS SHALL BE ENCIRCLED BY ORANGE PLASTIC TEMPORARY CONSTRUCTION FENCING OR OTHER MEANS OF DELINEATING THE AREAS. AT THE CONTRACTOR'S OPTION, ADDITIONAL OR MORE STURDY BARRIERS MAY BE INCLUDED.
16. STOCKPILED MATERIALS: STOCKPILES OF SOIL IN AREAS CREATED DURING CONSTRUCTION ACTIVITIES ARE TO BE SURROUNDED WITH SEDIMENT CONTROL WHERE POSSIBLE. OTHER ALTERNATIVES UTILIZED MAY INCLUDE GRAVEL FILTER BERMS OR SIMILAR MEASURES LAID AROUND THE PERIMETER OF THE STOCKPILE.
17. TEMPORARY STABILIZATION: WHEN NECESSARY, TEMPORARY SLOPE PROTECTION SHALL BE PROVIDED BY INSTALLING SEDIMENT CONTROL BARRIERS AT THE TOE OF FILLS OR CUT SLOPES. IF ADDITIONAL STABILIZATION IS NEEDED, THEN THE CONTRACTOR SHALL INSTALL EROSION CONTROL, SUCH AS HAY, JUTE, WOOD FIBER, OR BIO OR PHOTO-DEGRADABLE MESH. IN THE EVENT THAT DISTURBED AREAS AT THE SITE ARE TO BE LEFT UN-WORKED FOR MORE THAN TWO WEEKS, THE AREAS SHALL BE MULCHED WITH STRAW AT A RATE OF 100 LBS. PER 1,000 S.F. TO HELP CONTROL EROSION. TWO INCHES OF WOOD CHIP MULCH MAY ALSO BE USED AS TEMPORARY COVER. IN THE EVENT THAT DISTURBED AREAS AT THE SITE ARE TO BE LEFT UN-WORKED FOR MORE THAN ONE MONTH, THE AREAS SHALL BE TOPSOILED AND SEEDED AT NO ADDITIONAL COST TO THE OWNER. LEAVE THE SURFACE OF ALL EXCAVATIONS AND FILLS IN A FIRM AND STABLE CONDITION AT THE END OF EACH DAY. ROLL OR OTHERWISE TREAT THE SURFACE AS NEEDED.
18. SITE-RESTORATION: STABILIZATION OF THE WOODED AREAS TO BE CLEARED AND OTHER AREAS DISTURBED AS A RESULT OF CONSTRUCTION SHALL BE IMPLEMENTED WITHIN 14 DAYS AFTER GRADING OR CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. APPROPRIATE VEGETATIVE SOIL STABILIZATION IS TO BE USED TO MINIMIZE EROSION. TEMPORARY AND PERMANENT VEGETATIVE COVER IS TO BE ESTABLISHED IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, USING HYDRO-SEEDING, AS SPECIFIED IN SECTION 0290 OF THE PROJECT SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF PREVIOUSLY VEGETATED AREAS DISTURBED BY CONSTRUCTION ACTIVITIES. UNLESS OTHERWISE SHOWN ON DRAWINGS, RESTORATION SHALL CONSIST OF REPLACEMENT OF TOPSOIL OR PLACEMENT OF IMPORTED LOAM AS NEEDED SUCH THAT A MINIMUM OF 6 INCHES OF SUITABLE MATERIAL IS PRESENT AND APPROPRIATELY LIMED, FERTILIZED, GRADED, AND SCARIFIED.

RESTORED ARES SHALL BE ROLLED AND THEN APPROPRIATELY MULCHED OR COVERED IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.

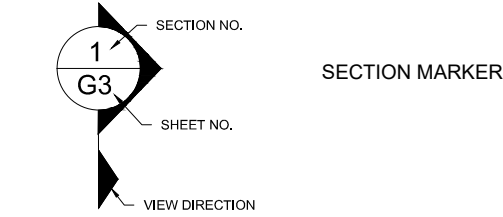
FINAL STABILIZATION SHALL BE CONSIDERED COMPLETE WHEN ALL SOIL-DISTURBING ACTIVITIES HAVE BEEN COMPLETED AND A UNIFORM, PERENNIAL VEGETATIVE COVER WITH A DENSITY OF EIGHTY PERCENT HAS BEEN ESTABLISHED OR EQUIVALENT STABILIZATION MEASURES (SUCH AS THE USE OF MULCHES OR EROSION CONTROL MATTING) HAVE BEEN EMPLOYED ON ALL UNPAVED AREAS WITHIN THE CONSTRUCTION LIMITS AND AREAS NOT COVERED BY PERMANENT STRUCTURES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF SURFACES LOAMED AND SEEDED UNDER THIS CONTRACT, INCLUDING WATERING, FERTILIZING, AND RE-SEEDING UNTIL ESTABLISHMENT CONDITIONS ARE MET AND UNTIL THE END OF THE CONTRACTUAL MAINTENANCE PERIOD.

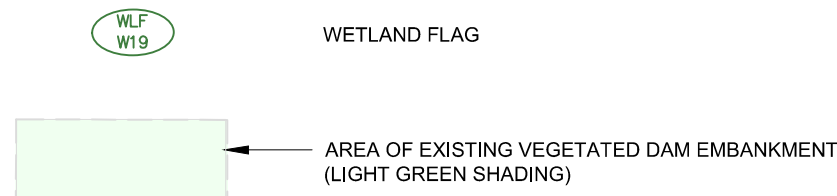
ALL SLOPES WITHIN THE PROJECT LIMITS WILL BE STABILIZED WITHIN 2 WEEKS OF THE FINAL GRADING. AREAS FAILING TO BE STABILIZED SHALL BE RE-GRADED AND CONTINUED TO BE STABILIZED AS NEEDED.

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- APPROXIMATE LIMIT OF WORK
- APPROXIMATE LIMITS OF WETLANDS
- APPROXIMATE LIMITS OF NORMAL POOL

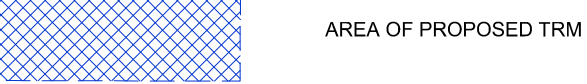


- EXISTING CONTOUR
- APPROXIMATE LIMIT OF 100-YEAR FLOOD
- APPROXIMATE LIMITS OF WETLANDS

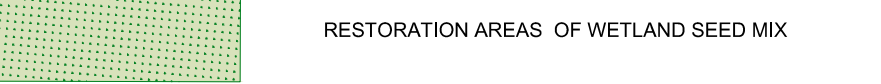


- EXISTING TREELINE
- FORMER TREELINE (SEE SHEET C3)
- PROPOSED TREELINE

- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- SPOT ELEVATION



- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED



- PHASE I COFFERDAM
- PHASE II COFFERDAM



0" 1"
BAR IS ONE INCH ON ORIGINAL DRAWING

BID DRAWINGS

4	CT DEEP COMMENT UPDATES (REV 3)	JMC	APRIL 2020
3	CT DEEP COMMENT UPDATES (REV 2)	CBN	JULY 2019
2	CTDEEP COMMENT UPDATES	CBN	APR 2018
1	ISSUED FOR PERMITTING	CBN	NOV 2017
NO.	ISSUE/DESCRIPTION	BY	DATE

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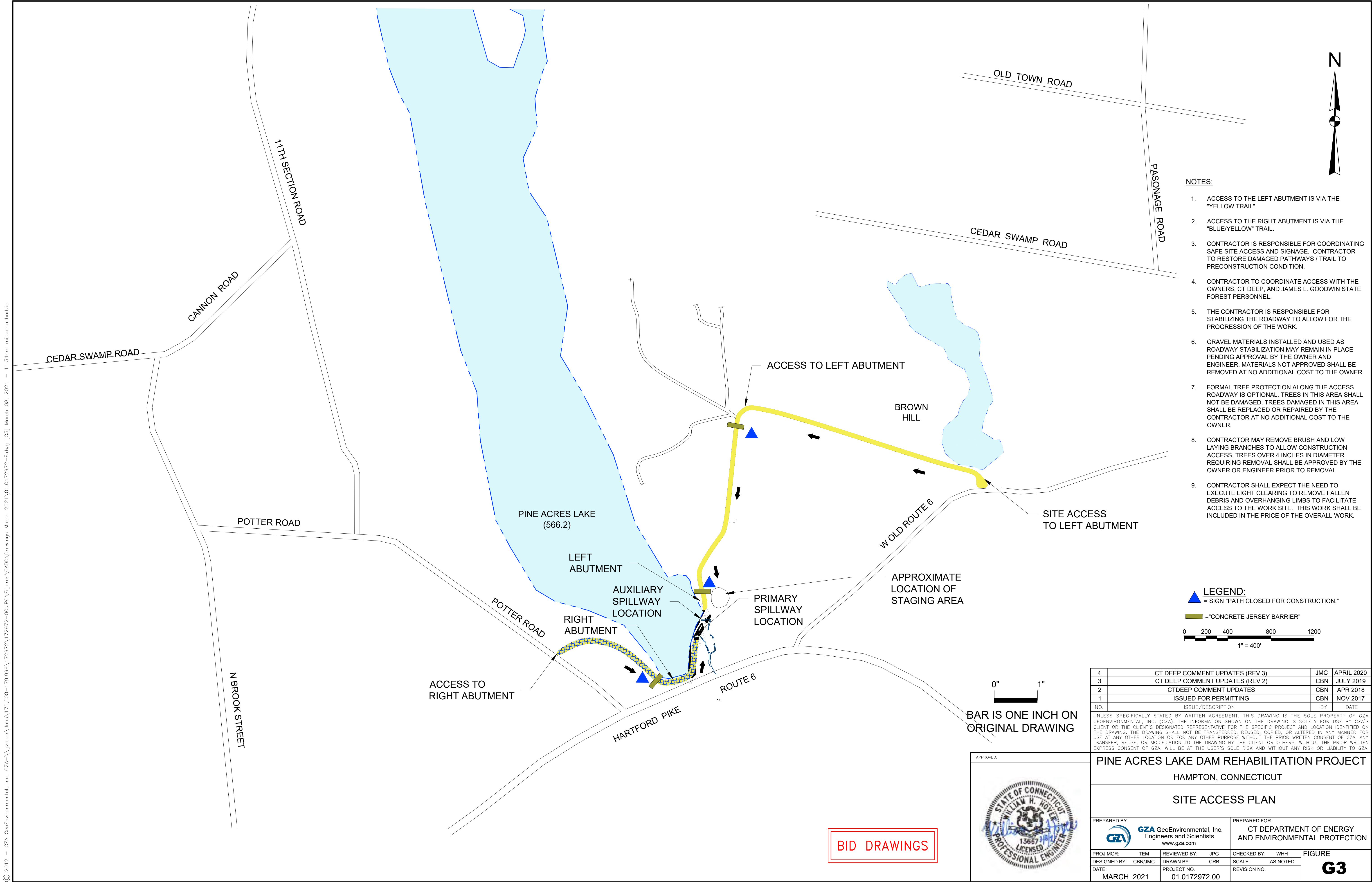
PINE ACRES LAKE DAM REHABILITATION PROJECT

HAMPTON, CONNECTICUT

LEGEND AND GENERAL NOTES

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: CT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION	
PROJ MGR: TEM	REVIEWED BY: JPG	CHECKED BY: WHH	FIGURE
DESIGNED BY: CBN/JMC	DRAWN BY: CRB	SCALE: AS NOTED	
DATE: MARCH, 2021	PROJECT NO. 01.0172972.00	REVISION NO.	

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BASELINE CURVE TABLE					
CURVE #	RADIUS (FT)	ARC LENGTH (FT)	CENTRAL ANGLE (°)	START POINT	END POINT
C1	321.62	150.06	26	1183330.40 N 844309.39 E	1183287.12 N 844167.12 E

BASELINE GEOMETRY TABLE		
STATION	NORTHING	EASTING
0+00	1183284.93	843917.09
0+50	1183285.19	843947.09
1+00	1183286.07	844047.09
1+50	1183286.07	844047.09
2+00	1183286.94	844147.08
2+50	1183286.94	844147.08
2+70	1183330.40	844309.39
3+00	1183290.46	844197.49
3+50	1183302.24	844246.57
4+00	1183321.55	844293.19
4+20	1183330.40	844309.38
4+50	1183355.44	844352.66
4+95	1183378.01	844391.64
5+00	1183378.26	844396.64
5+50	1183380.73	844446.57

PINE ACRES LAKE
NORMAL POOL ELEVATION = ±566.2

WATER LEVEL OF
IMPOUNDMENT ON OCTOBER
13, 2016 = EL. 566.2'

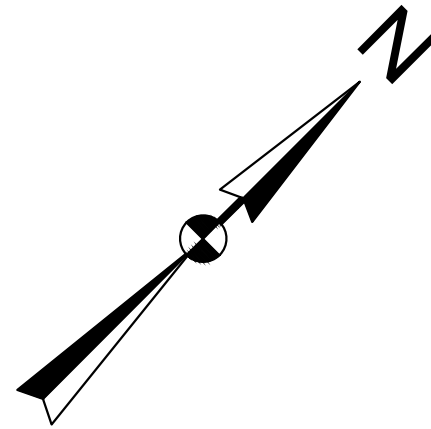
SPORADIC AND PARTIALLY BURIED
RIP RAP ALONG UPSTREAM SLOPE

BASELINE (SEE BASELINE
GEOMETRY AND BASELINE
CURVE TABLE, THIS SHEET)

APPROXIMATE LIMIT OF 100
YEAR FLOOD, BASED ON
AVAILABLE TOPOGRAPHY

APPARENT EXISTING
RAMP AT DOWNSTREAM
SLOPE (NO LONGER
USED)

CONTROL POINT TABLE			
CONTROL DESCRPTION	ELEVATION (FT.)	NORTHING (FT.)	EASTING (FT.)
EASTERN END (OAK TREE)	569.07	1183276.35	843821.77
WESTERN END (OAK TREE)	570.98	1183446.29	844486.28
CP #1	567.74	1183289.01	844216.74
CP #2	567.94	1183268.35	843831.82
CP #3	568.12	1183377.09	844424.64
CP #4	569.10	1183472.38	844536.40
ELEVATIONS REFERENCED TO NOTH AMERICAN VERTICAL DATUM 1988 (NAVD 88) LOCATUIONS REFERENCED TO NOTH AMERICAN DATUM OF 1983 (NAD83, CT STATE PLANE)			



EXISTING PRIMARY CONCRETE
SPILLWAY WITH STOP LOG BAY

EXISTING INTAKE PIPE
UNKNOWN

2' X 2' LOW LEVEL OUTLET GATE
DOWNSTREAM SIDE OF
CONCRETE WEIR

CURVE #C1

WOODY DEBRIS

TAILWATER
±558

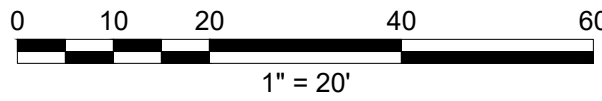
WOODED

PARTIALLY COLLAPSED
DOWNSTREAM STONE
MASONRY RETAINING WALLS
(EACH SIDE OF AUXILIARY
SPILLWAY CHANNEL)

APPROXIMATE LIMIT OF 100 YEAR FLOOD
BASED ON AVAILABLE TOPOGRAPHY

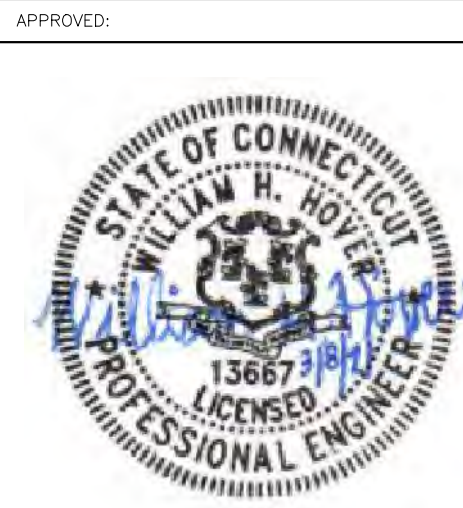
NOTES:

- TOPOGRAPHIC SURVEY CONFORMS TO A HORIZONTAL ACCURACY CLASS A-2 AND VERTICAL ACCURACY CLASS T-2.
- HORIZONTAL CONTROL: NAD83 CONNECTICUT STATE PLANE
VERTICAL DATUM: FEET NAVD88
- IMPOUNDMENT LEVEL AS OF OCTOBER 13, 2016 = 566.2'.
- 100-YEAR FLOOD LIMITS WERE DEVELOPED USING THE FEMA FLOOD INSURANCE RATE MAP "COMMUNITY NUMBER 090170," EFFECTIVE DECEMBER 4, 1985 WAS AND REFINED BY GZA BASED ON TOPOGRAPHIC SURVEY DATA AT THE DAM.
- BATHYMETRIC SURVEY INFORMATION USED SUPPLEMENTAL FORM "CT GIS CLIP - AERIAL WITH 2 FT. CONTOURS AND BATHYMETRY.PNG", AND IS FOR REFERENCE ONLY. GZA MAKES NO GUARANTEE IN REGARDS TO THE ACCURACY OF THIS INFORMATION.
- CONTROL POINT 4 NOT SHOWN ON THIS SHEET.



BAR IS ONE INCH ON
ORIGINAL DRAWING

BID DRAWINGS




4	CT DEEP COMMENT UPDATES (REV 3)	JMC	APRIL 2020
3	CT DEEP COMMENT UPDATES (REV 2)	CBN	JULY 2019
2	CTDEEP COMMENT UPDATES	CBN	APR 2018
1	ISSUED FOR PERMITTING	CBN	NOV 2017
NO.	ISSUE/DESCRIPTION	BY	DATE

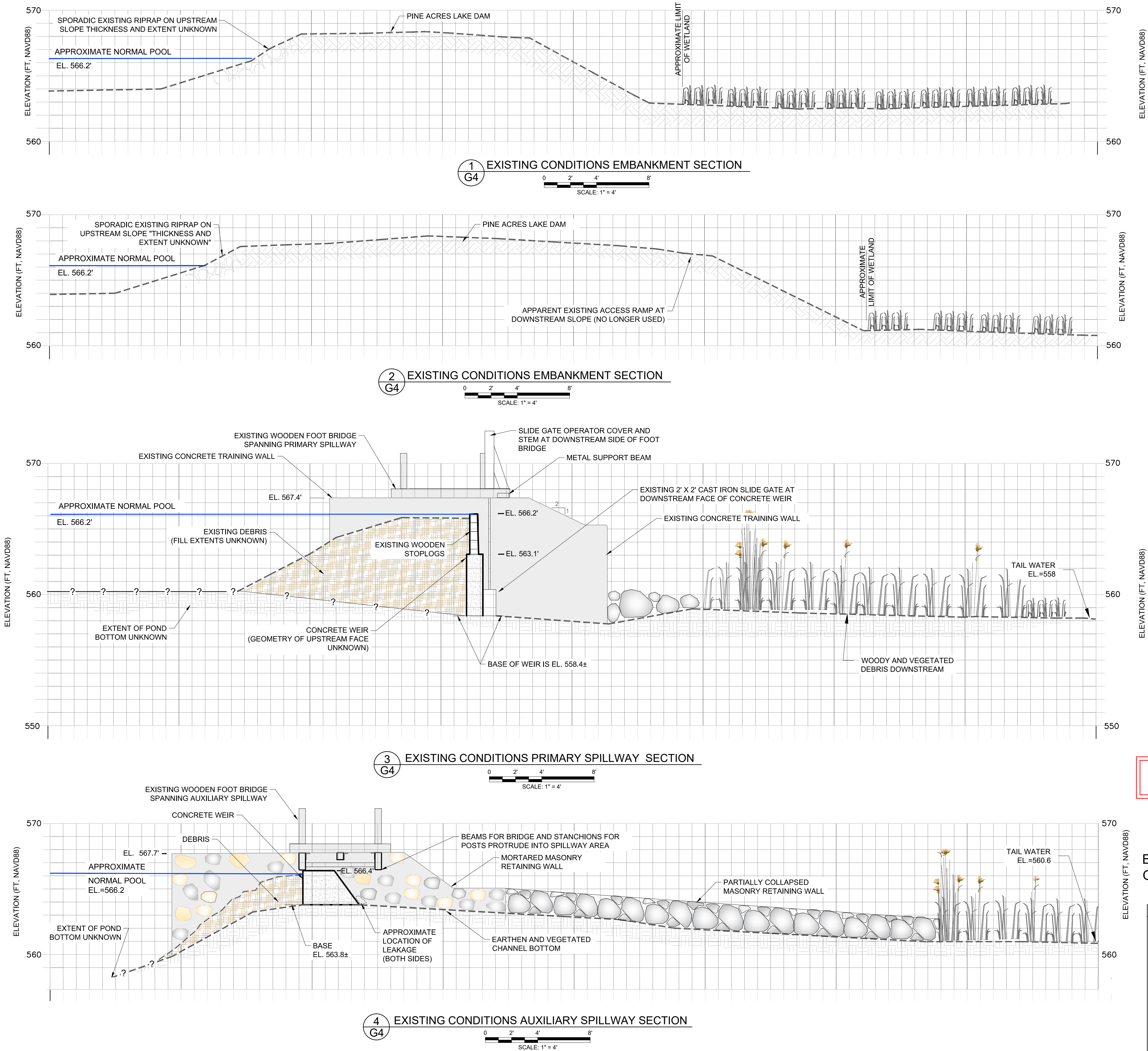
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PINE ACRES LAKE DAM REHABILITATION PROJECT
HAMPTON, CONNECTICUT

EXISTING CONDITIONS PLAN

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PROJ MGR: TEM	REVIEWED BY: JPG	CHECKED BY: WHH	FIGURE G4
DESIGNED BY: CBN/JMC	DRAWN BY: CRB	SCALE: AS NOTED	
DATE: MARCH, 2021	PROJECT NO: 01.0172972.00	REVISION NO:	

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NOTE:
EXTENT OF WETLAND PLANT GROWTH IS APPROXIMATE AND SHOWN AS AN
ILLUSTRATION. NO WETLAND FLAGGING WAS PERFORMED WITHIN THE
DOWNSTREAM CHANNELS.

BID DRAWINGS


0" 1"
BAR IS ONE INCH ON
ORIGINAL DRAWING

4	CT DEEP COMMENT UPDATES (REV 3)	JMC	APRIL 2020
3	CT DEEP COMMENT UPDATES (REV 2)	CBN	JULY 2019
2	CTDEEP COMMENT UPDATES	CBN	APR 2018
1	ISSUED FOR PERMITTING	CBN	NOV 2017
NO.	ISSUE/DESCRIPTION	BY	DATE

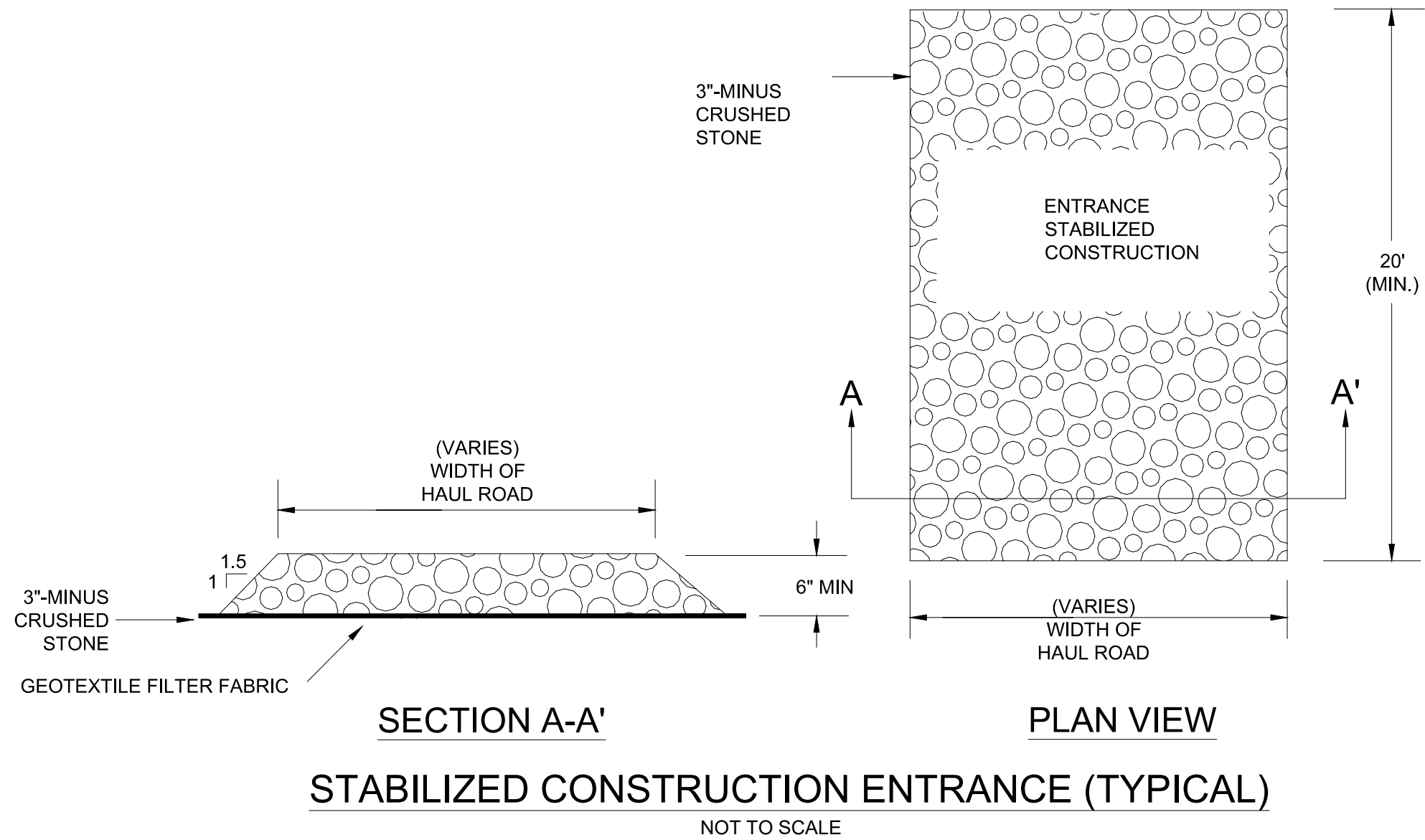
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PINE ACRES LAKE DAM REHABILITATION PROJECT
HAMPTON, CONNECTICUT

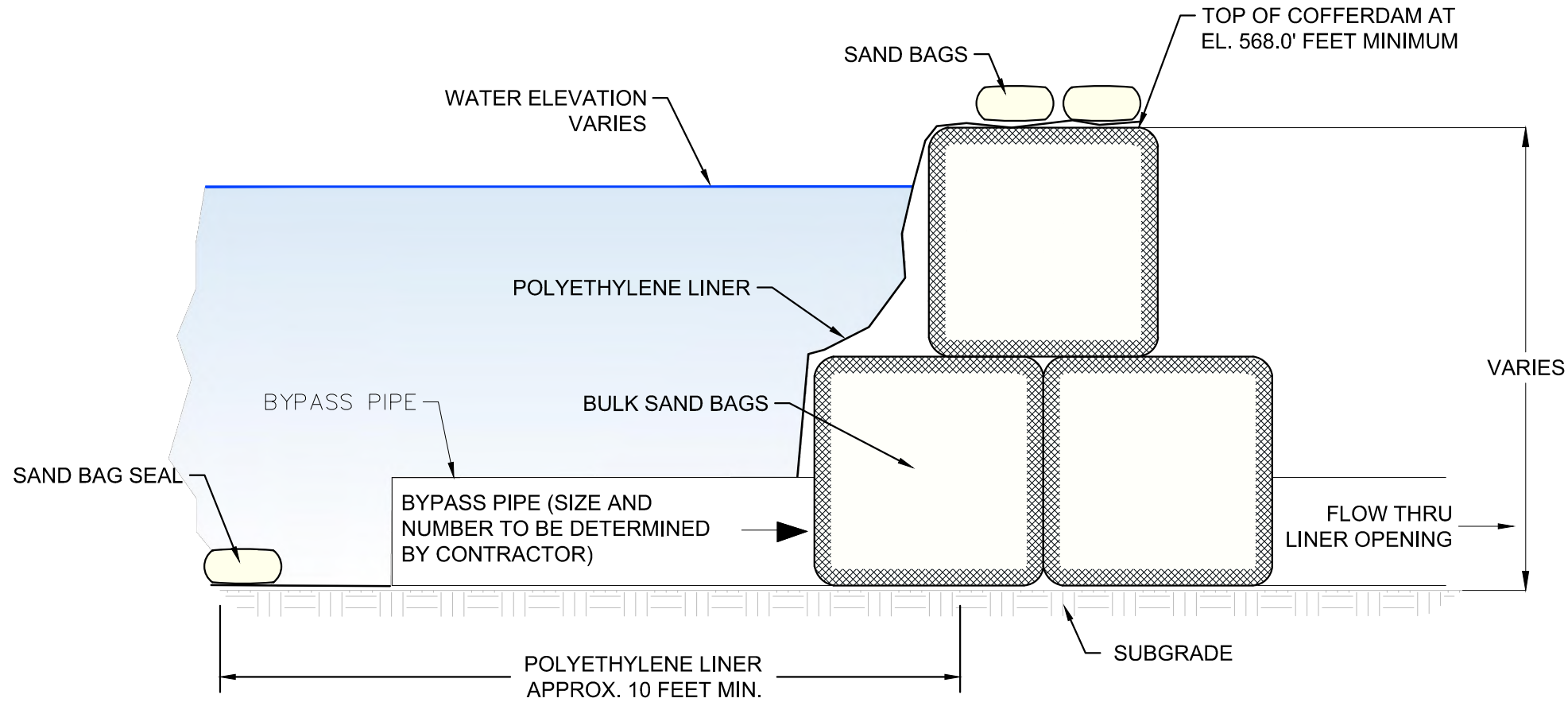
EXISTING CONDITIONS SECTIONS

PREPARED BY:		GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR:		CT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION	
							
PROJ MGR:	TEM	REVIEWED BY:	JPG	CHECKED BY:	WHH	FIGURE G5	
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DATE:	MARCH, 2021	PROJECT NO.	01.0172972.00	REVISION NO.			

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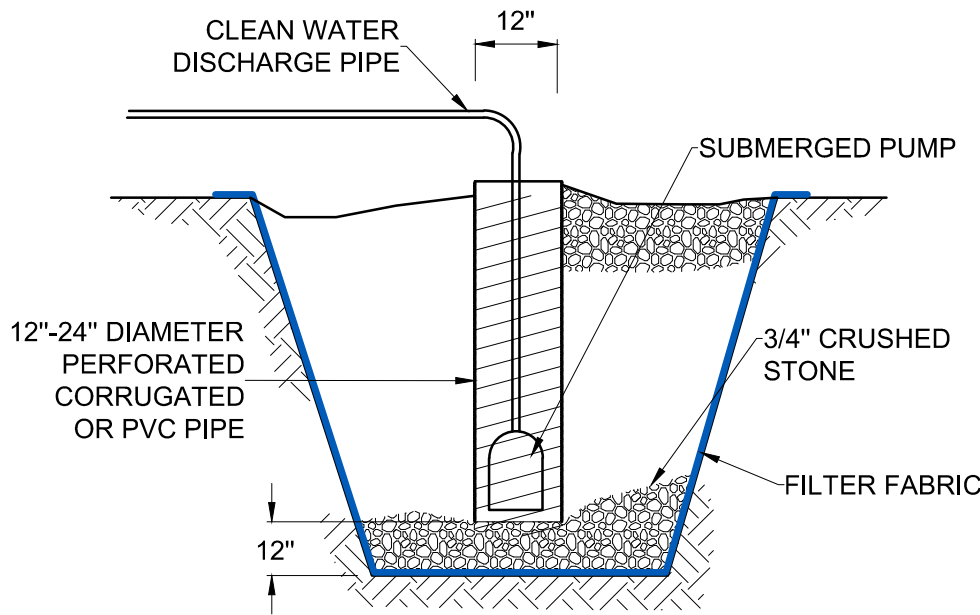


SECTION A-A'
PLAN VIEW
STABILIZED CONSTRUCTION ENTRANCE (TYPICAL)
NOT TO SCALE



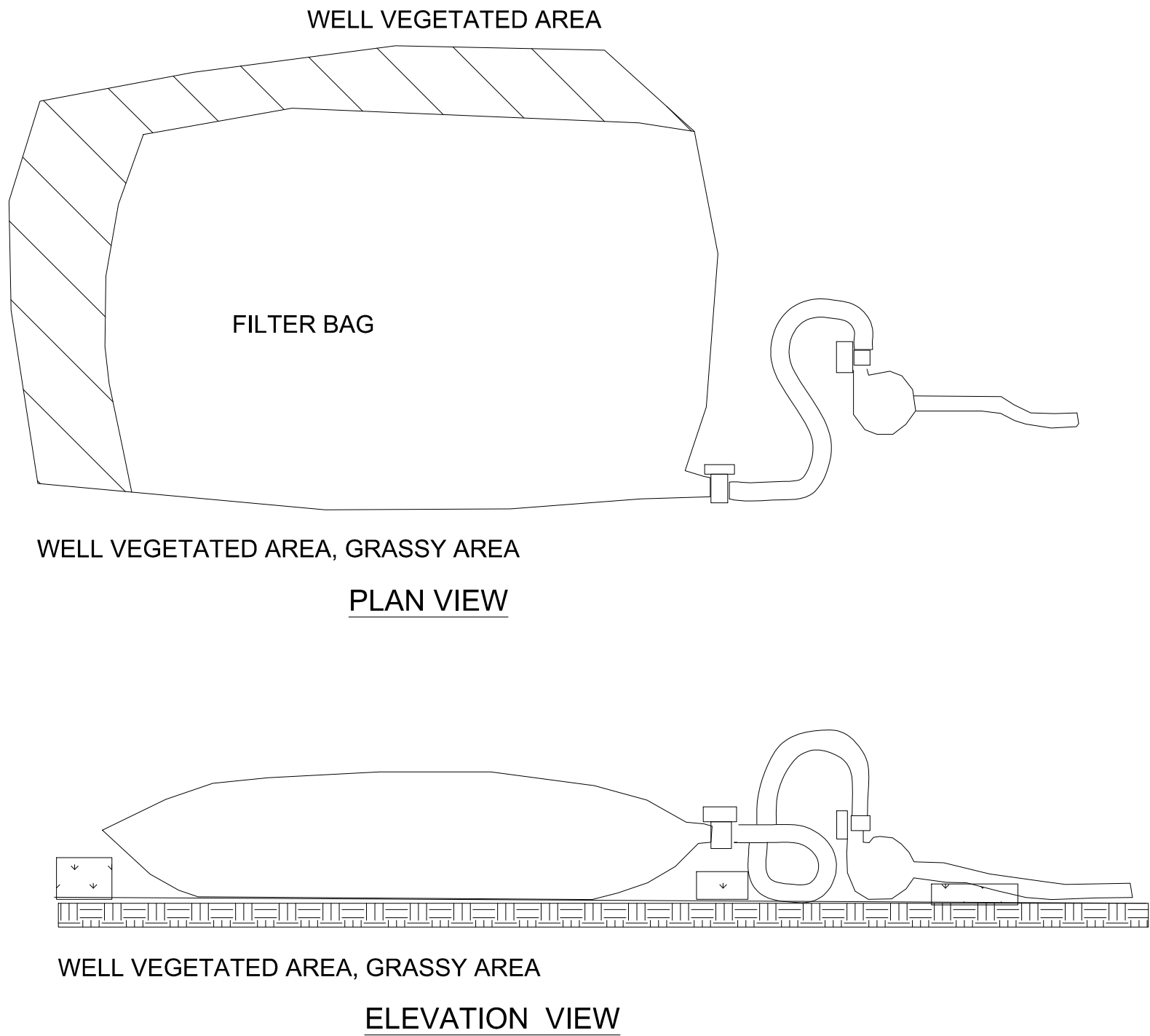
NOTE:
THE CONTRACTOR SHALL (AT NO ADDITIONAL COST TO THE OWNER) ENGAGE A CONNECTICUT REGISTERED PROFESSIONAL ENGINEER TO DESIGN AND STAMP THE COFFERDAM.

POTENTIAL TEMPORARY COFFERDAM DETAIL
NOT TO SCALE



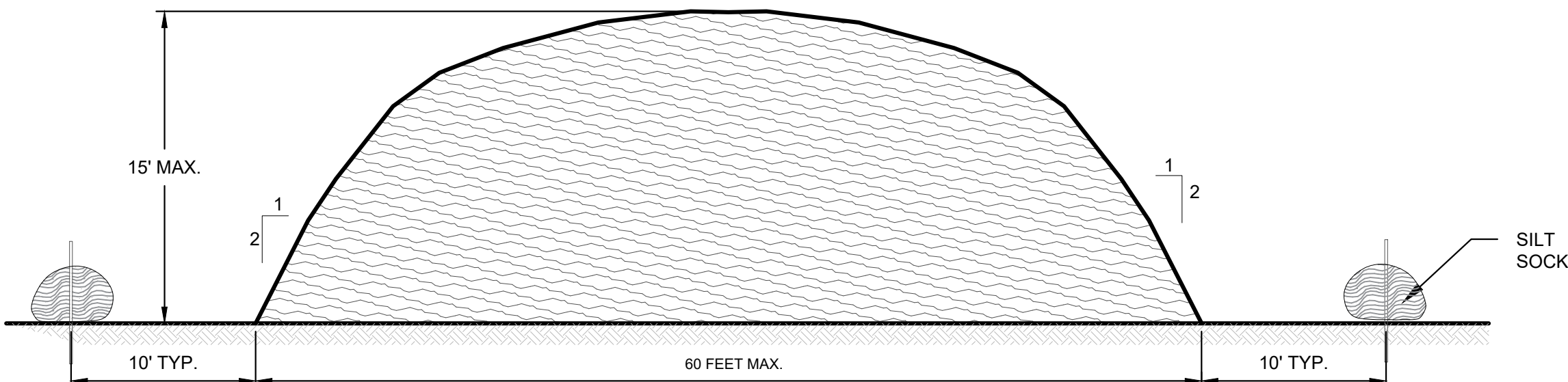
DEWATERING SUMP DETAIL
NOT TO SCALE

NOTE:
1. CRUSHED STONE SHALL BE REMOVED ENTIRELY AFTER USE.



PUMPED WATER FILTER BAG NOTES:
1. CONTRACTOR SHALL LOCATE FILTER BAG TO COMPLY WITH REQUIREMENTS BELOW. LOCATION IS SUBJECT TO APPROVAL BY THE ENGINEER.
2. FILTER BAGS SHALL BE USED TO FILTER WATER PUMPED FROM DISTURBED AREAS PRIOR TO DISCHARGING.
3. FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. CONTRACTOR SHALL PROVIDE A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY (FOR DISPOSAL PURPOSES).
4. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME HALF FULL OF SEDIMENT.
5. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.
6. BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE FILTER FABRIC-LINED FLOW PATH SHALL BE PROVIDED. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%.
7. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED.
8. THE PUMPING RATE SHALL BE NO GREATER THAN 100 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.
9. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

PUMPED WATER FILTER BAG DETAIL
NOT TO SCALE



NOTES:
1. STOCKPILES AREA SHALL NOT EXCEED SPECIFIED DIMENSIONS WITHOUT APPROVAL FROM ENGINEER.
2. STOCKPILED ERODIBLE MATERIAL THAT WILL NOT BE USED FOR GREATER THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY VEGETATION OR COVERED IMMEDIATELY FOLLOWING PLACEMENT.

ERODIBLE MATERIAL STOCKPILE
NOT TO SCALE

0" 1"
BAR IS ONE INCH ON ORIGINAL DRAWING

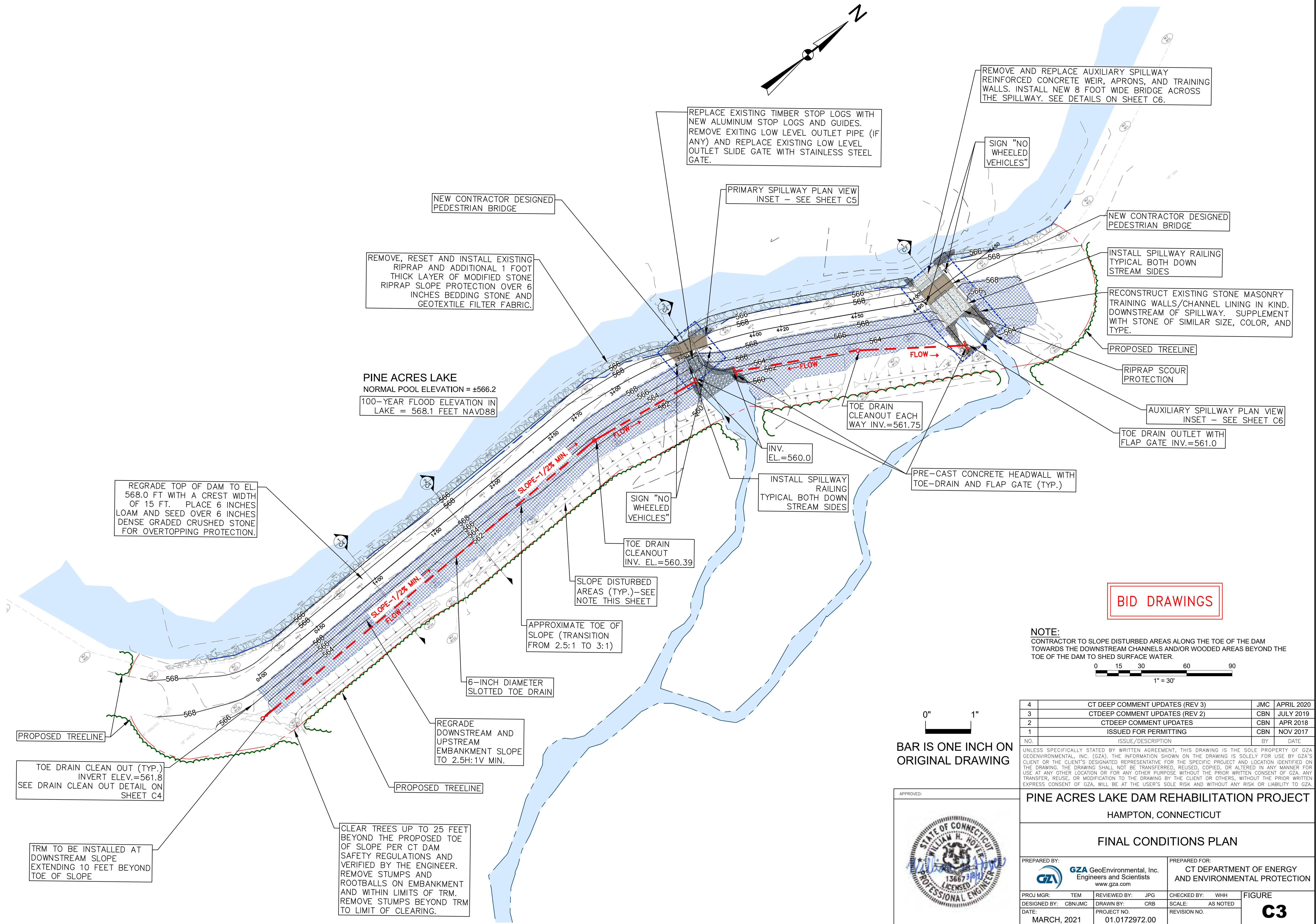


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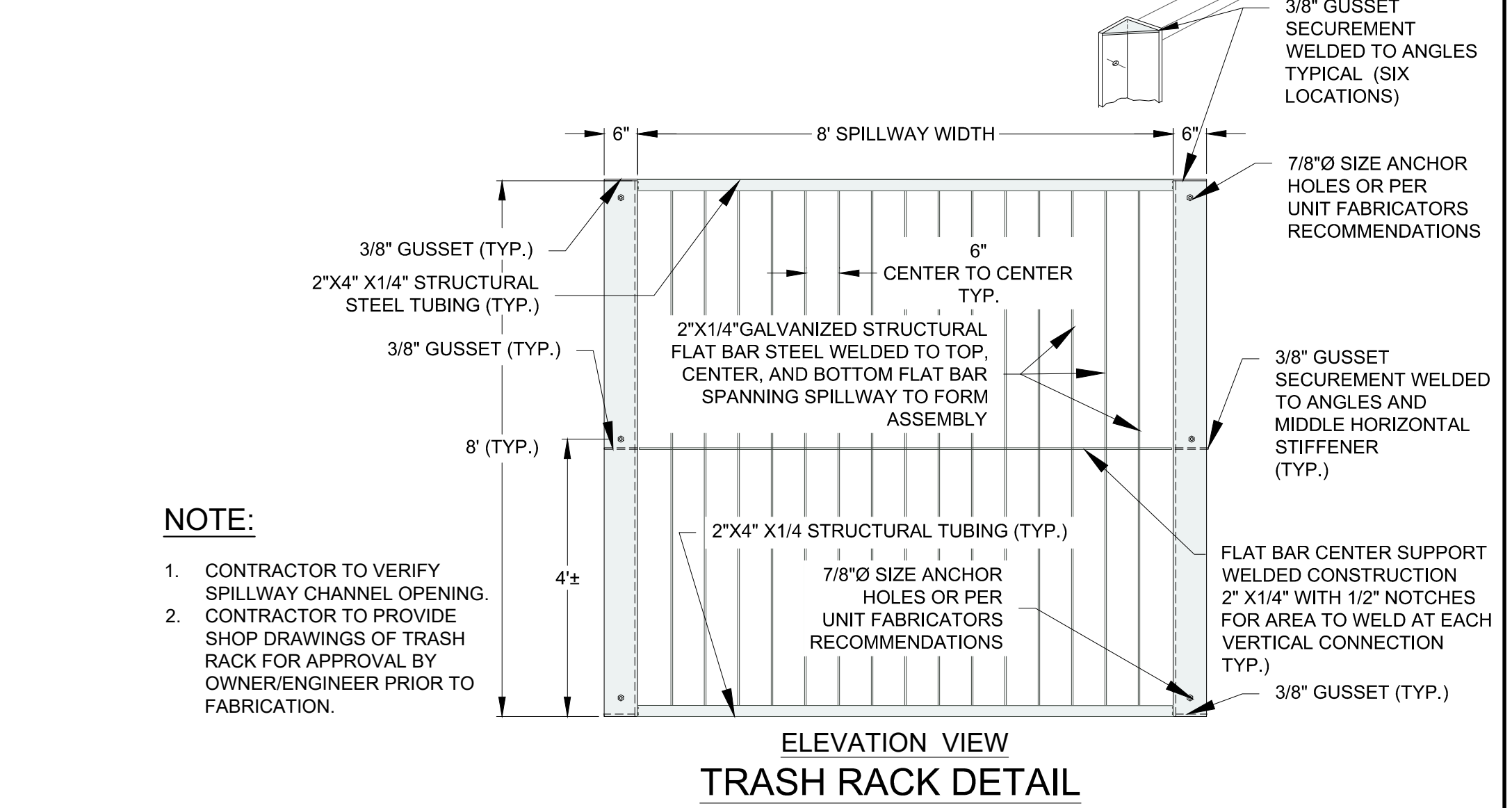
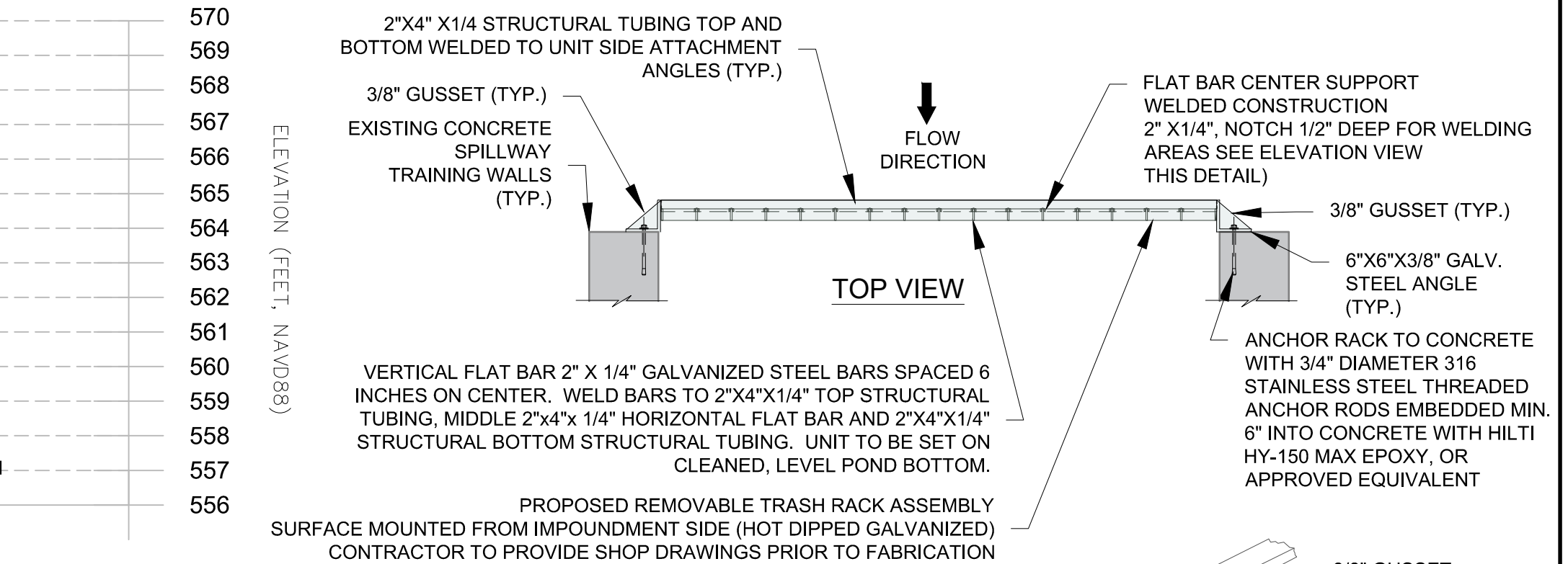
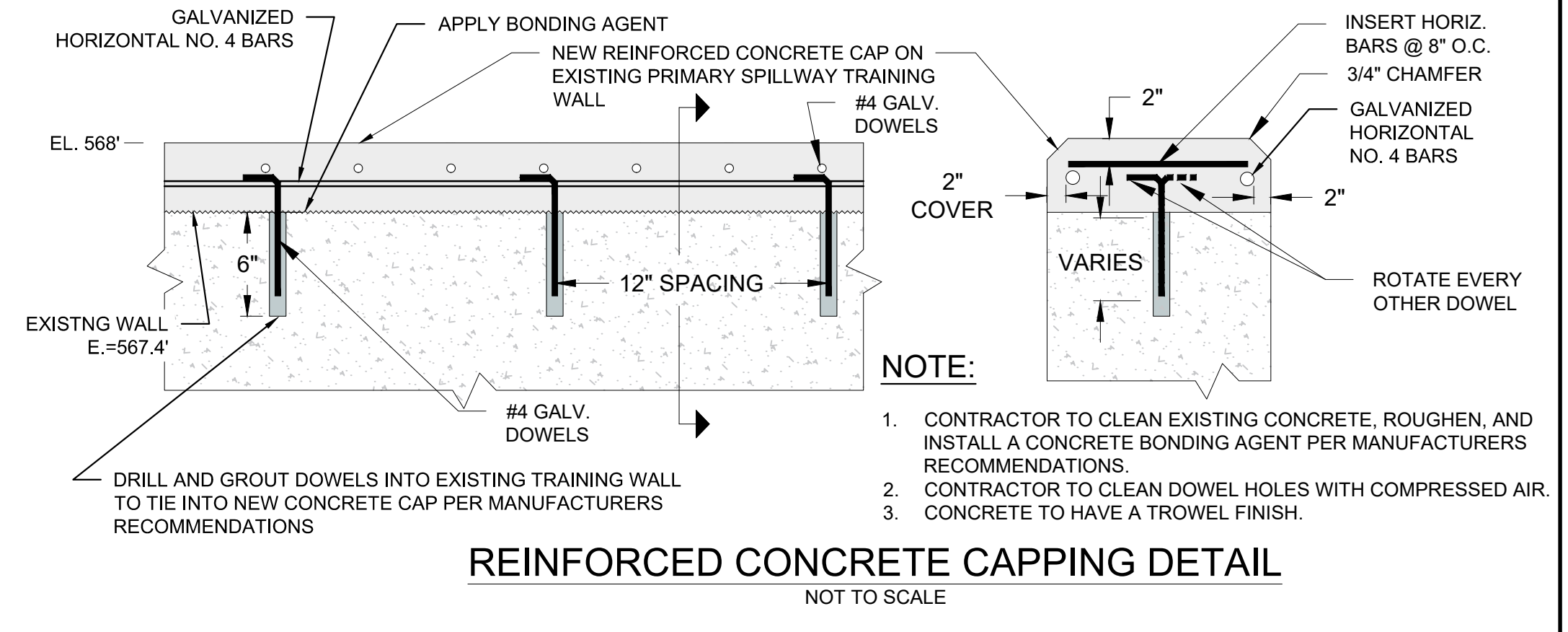
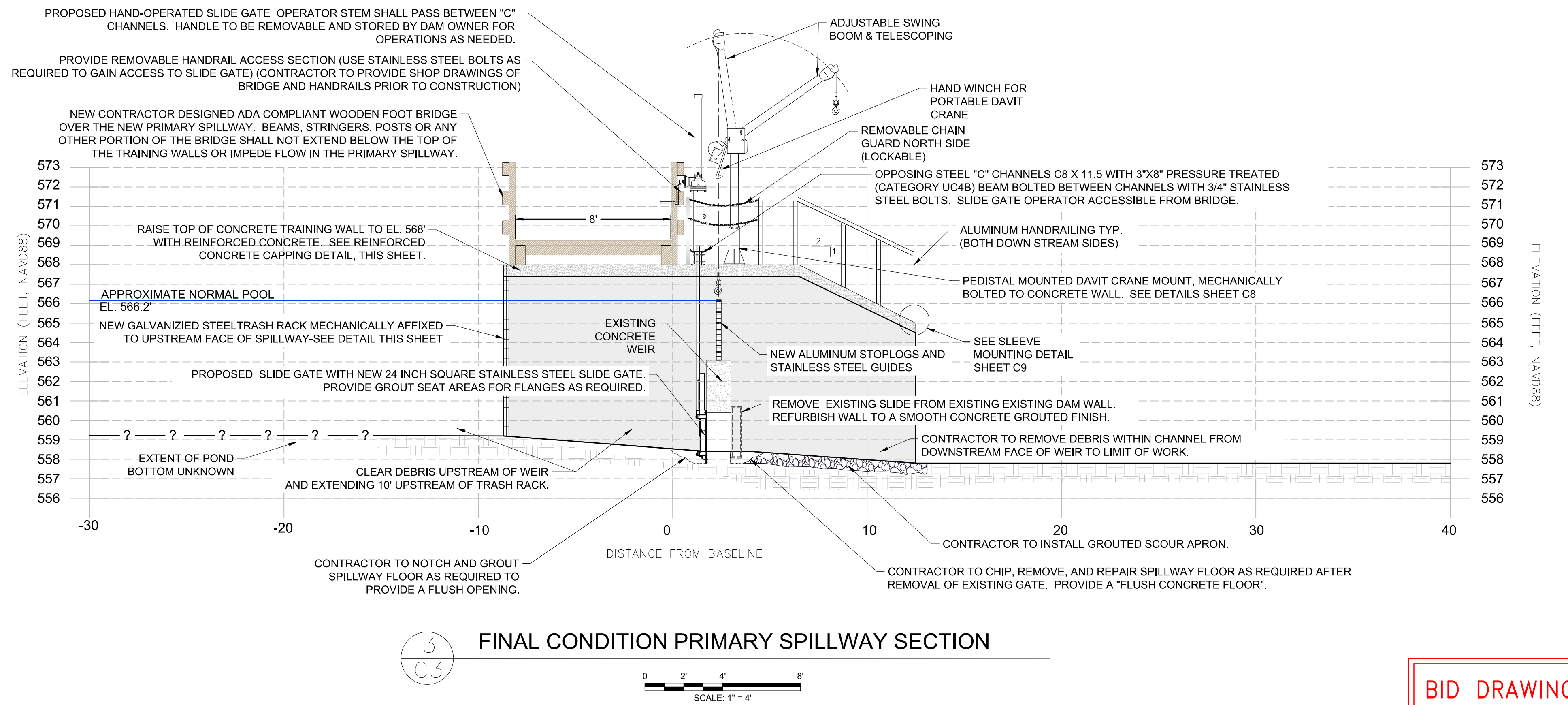
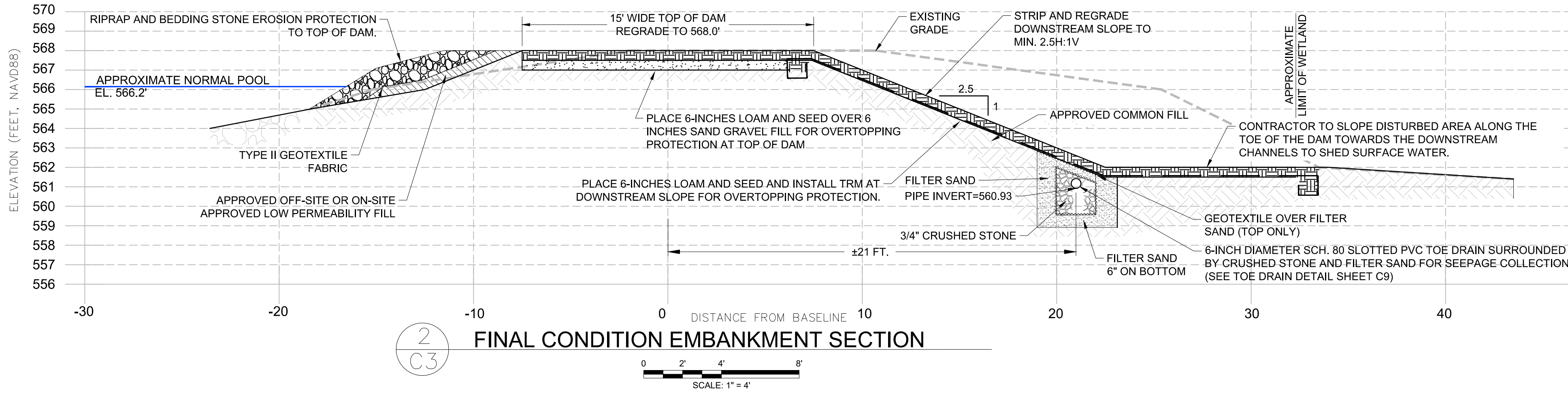
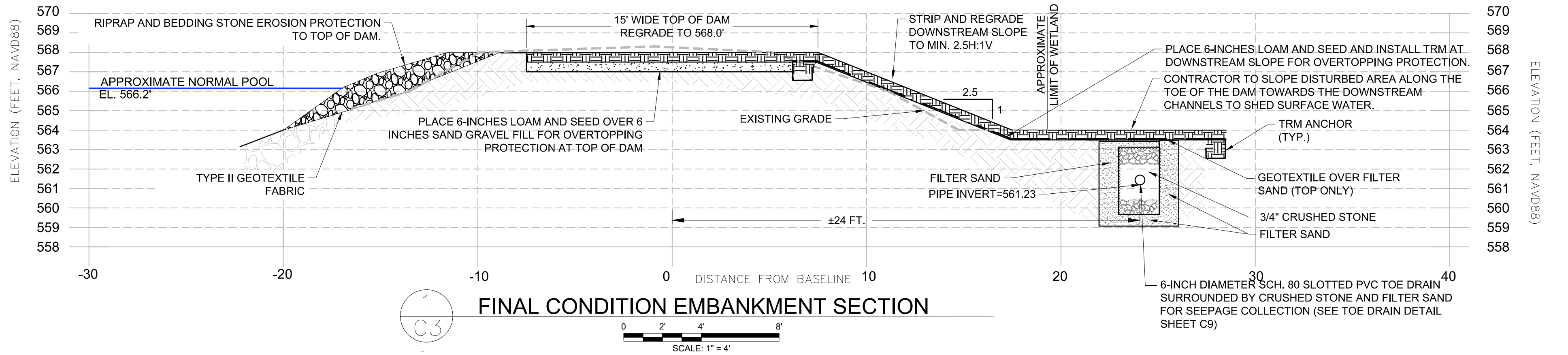
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PINE ACRES LAKE DAM REHABILITATION PROJECT			
HAMPTON, CONNECTICUT			
SEDIMENT AND EROSION CONTROL, WATER CONTROL, AND STAGING PLAN (SHEET 2 OF 2)			
PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: CT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION	
PROJ MGR: TEM	REVIEWED BY: JPG	CHECKED BY: WHH	FIGURE C2
DESIGNED BY: CBN/JMC	DRAWN BY: CRB	SCALE: AS NOTED	
DATE: MARCH, 2021	PROJECT NO. 01.0172972.00	REVISION NO.	

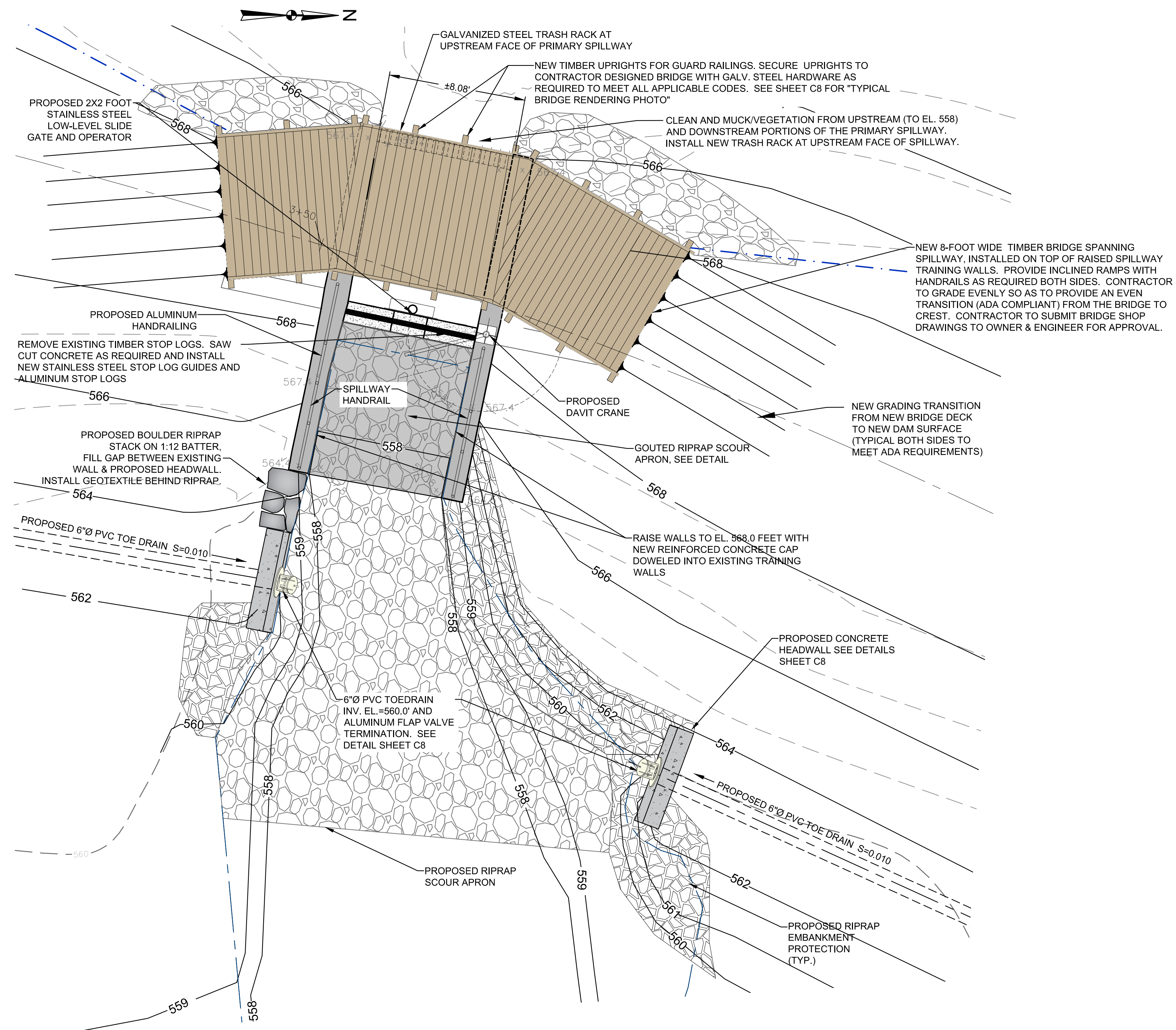
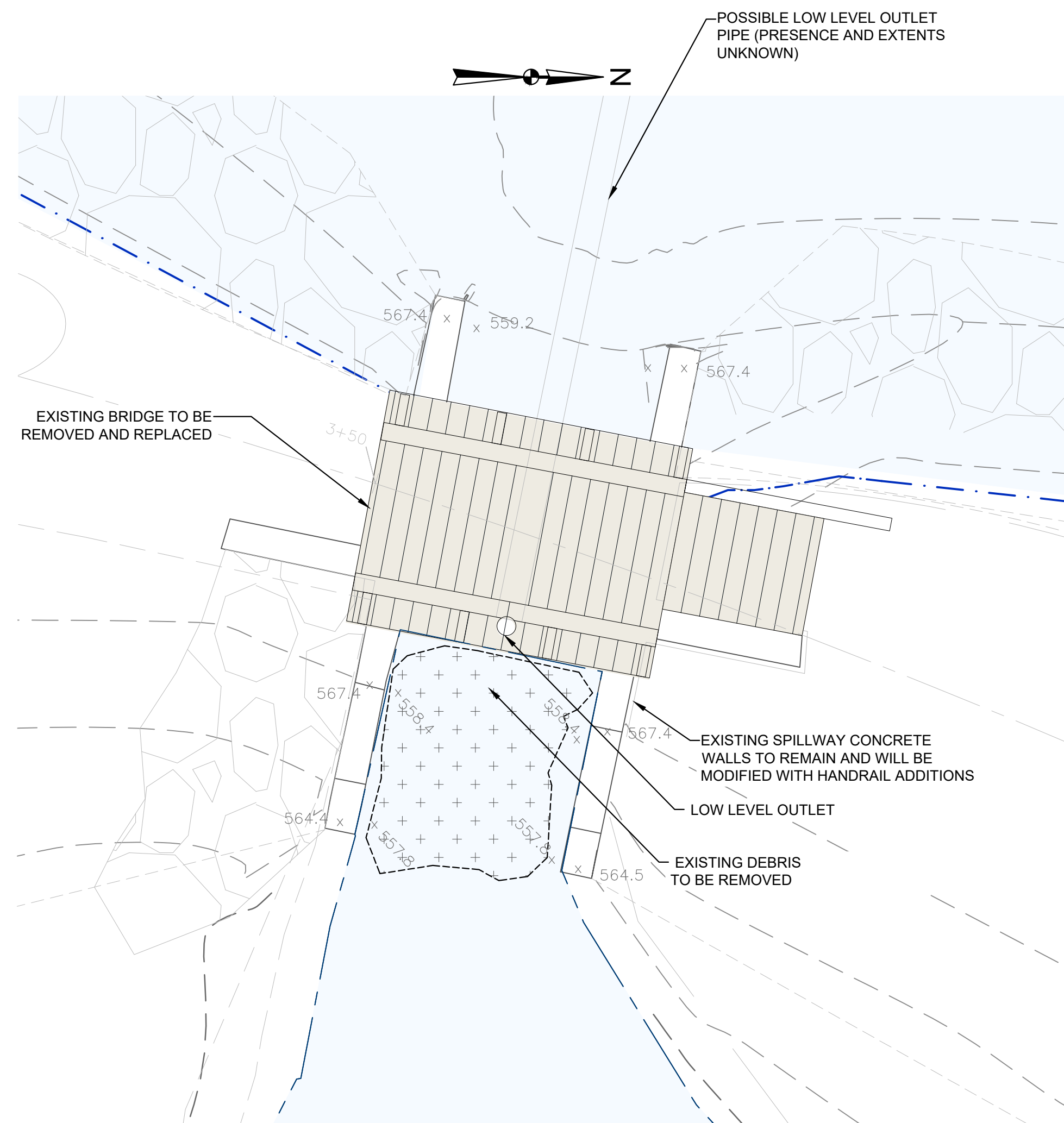
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0" 1"			
BAR IS ONE INCH ON ORIGINAL DRAWING			
APPROVED:			
PINE ACRES LAKE DAM REHABILITATION PROJECT			
HAMPTON, CONNECTICUT			
FINAL CONDITIONS SECTIONS & DETAILS			
PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: CT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION	
PROJ MGR: TEM	REVIEWED BY: JPG	CHECKED BY: WHH	FIGURE
DESIGNED BY: CBN/JMC	DRAWN BY: CRB	SCALE: AS NOTED	C4
DATE: MARCH, 2021	PROJECT NO: 01.0172972.00	REVISION NO:	



BID DRAWINGS

0" 1"


BAR IS ONE INCH ON ORIGINAL DRAWING

4	CT DEEP COMMENT UPDATES (REV 3)	JMC	APRIL 2020
3	CTDEEP COMMENT UPDATES (REV 2)	CBN	JULY 2018
2	CTDEEP COMMENT UPDATES	CBN	APR 2019
1	ISSUED FOR PERMITTING	CBN	NOV 2017
NO.	ISSUE/DESCRIPTION	BY	DATE

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PINE ACRES LAKE DAM REHABILITATION PROJECT
HAMPTON, CONNECTICUT

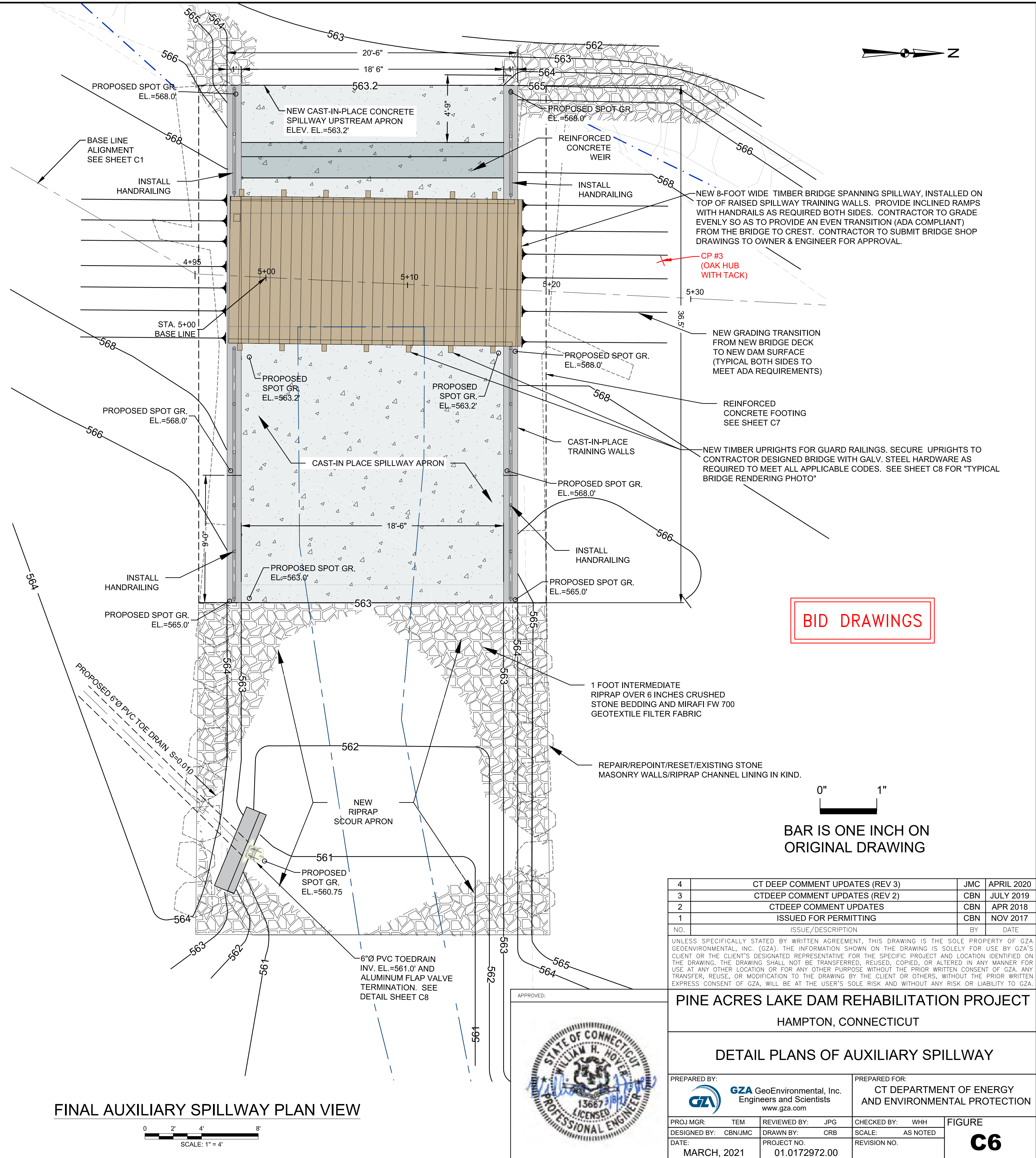
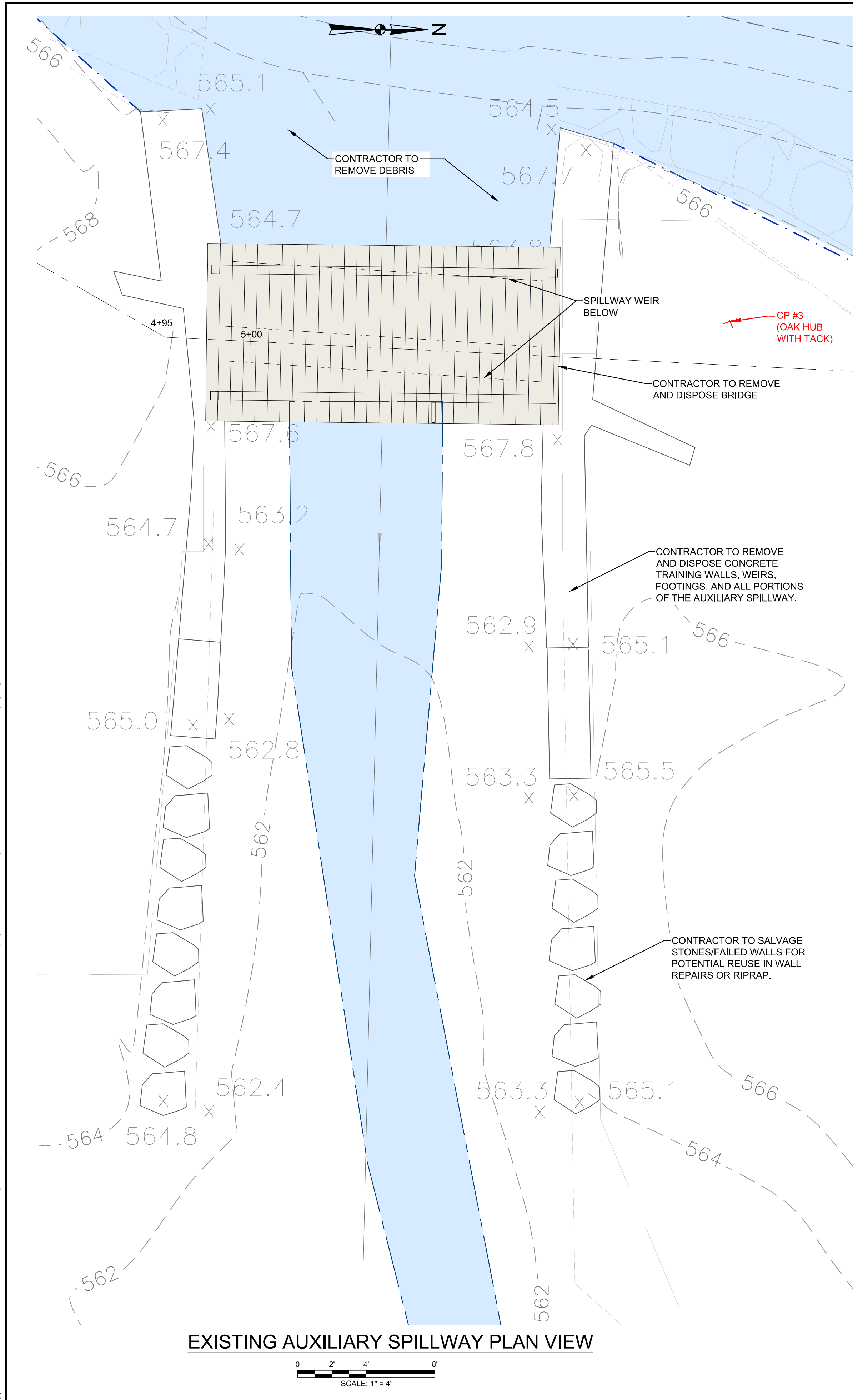
DETAIL PLANS OF PRIMARY SPILLWAY

PREPARED BY:  GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com	PREPARED FOR: CT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
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PROJ MGR: TEM	REVIEWED BY: JPG	CHECKED BY: WHH	FIGURE C5
DESIGNED BY: CBN/JMC	DRAWN BY: CRB	SCALE: AS NOTED	
DATE: MARCH, 2021	PROJECT NO. 01.0172972.00	REVISION NO.	

C5

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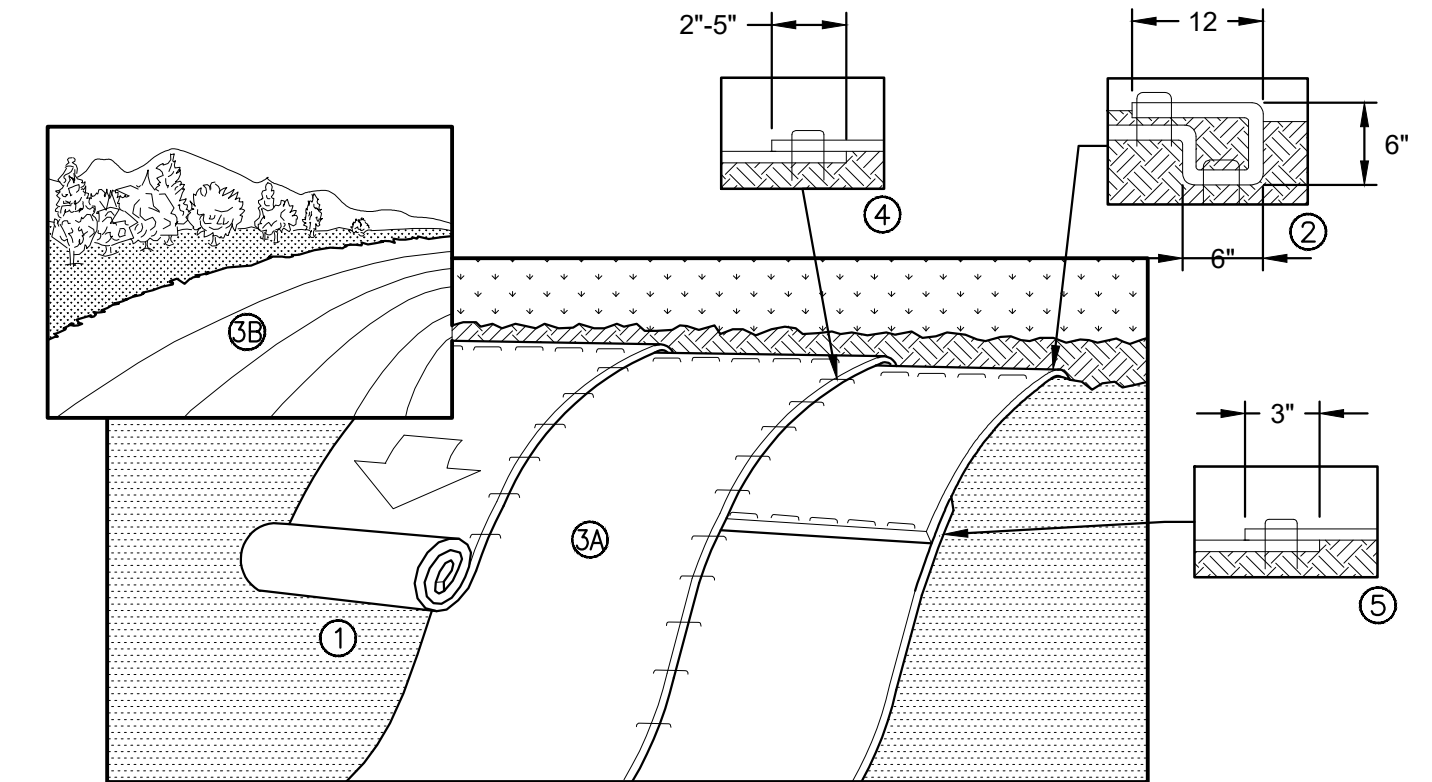
BID DRAWINGS

0" 1"
BAR IS ONE INCH ON ORIGINAL DRAWING

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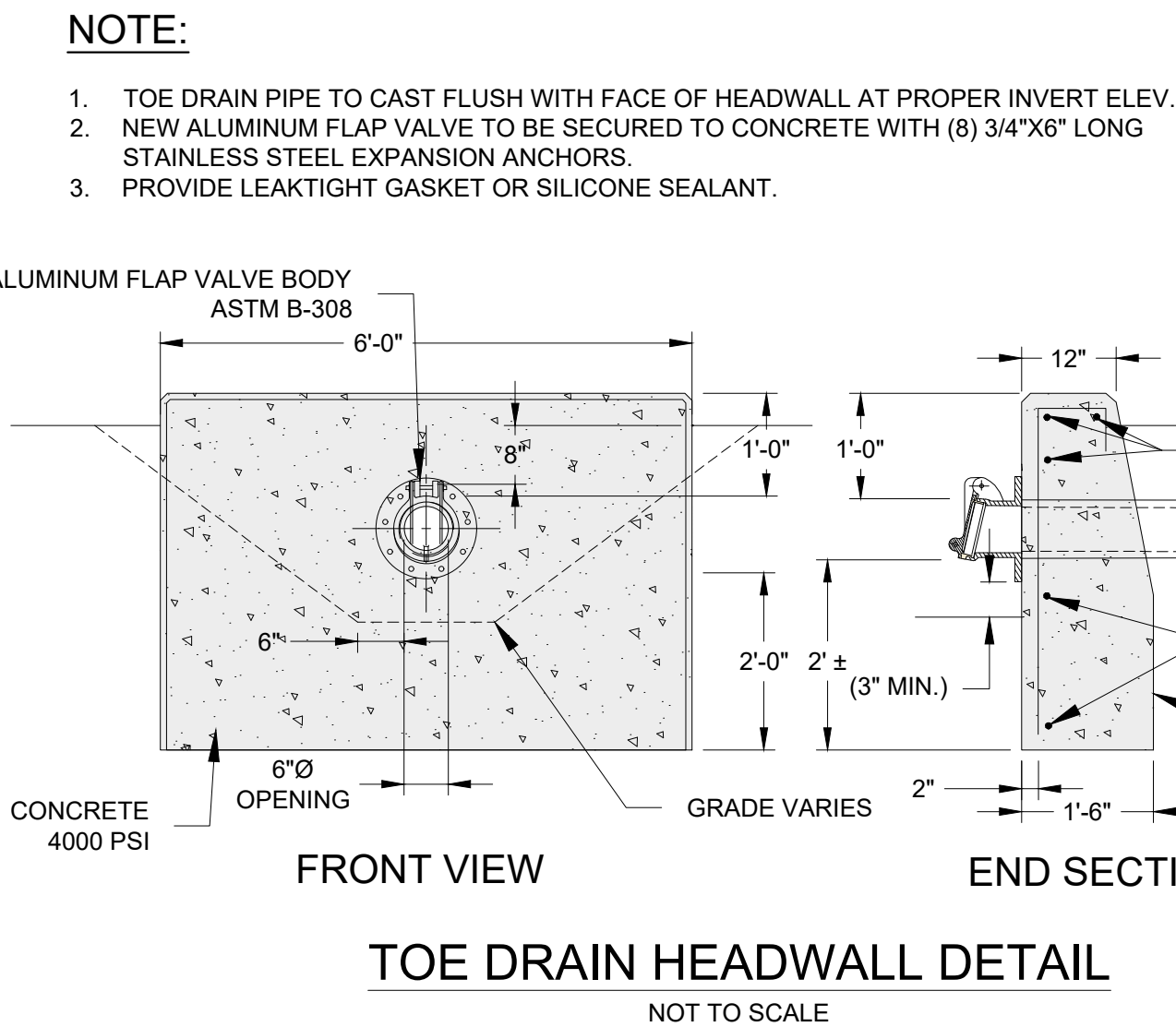
PINE ACRES LAKE DAM REHABILITATION PROJECT			
HAMPTON, CONNECTICUT			
DETAIL PLANS OF AUXILIARY SPILLWAY			
PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: CT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION	
PROJ MGR: TEM	REVIEWED BY: JPG	CHECKED BY: WHH	FIGURE
DESIGNED BY: CBN/JMC	DRAWN BY: CRB	SCALE: AS NOTED	C6
DATE: MARCH, 2021	PROJECT NO: 01.0172972.00	REVISION NO:	



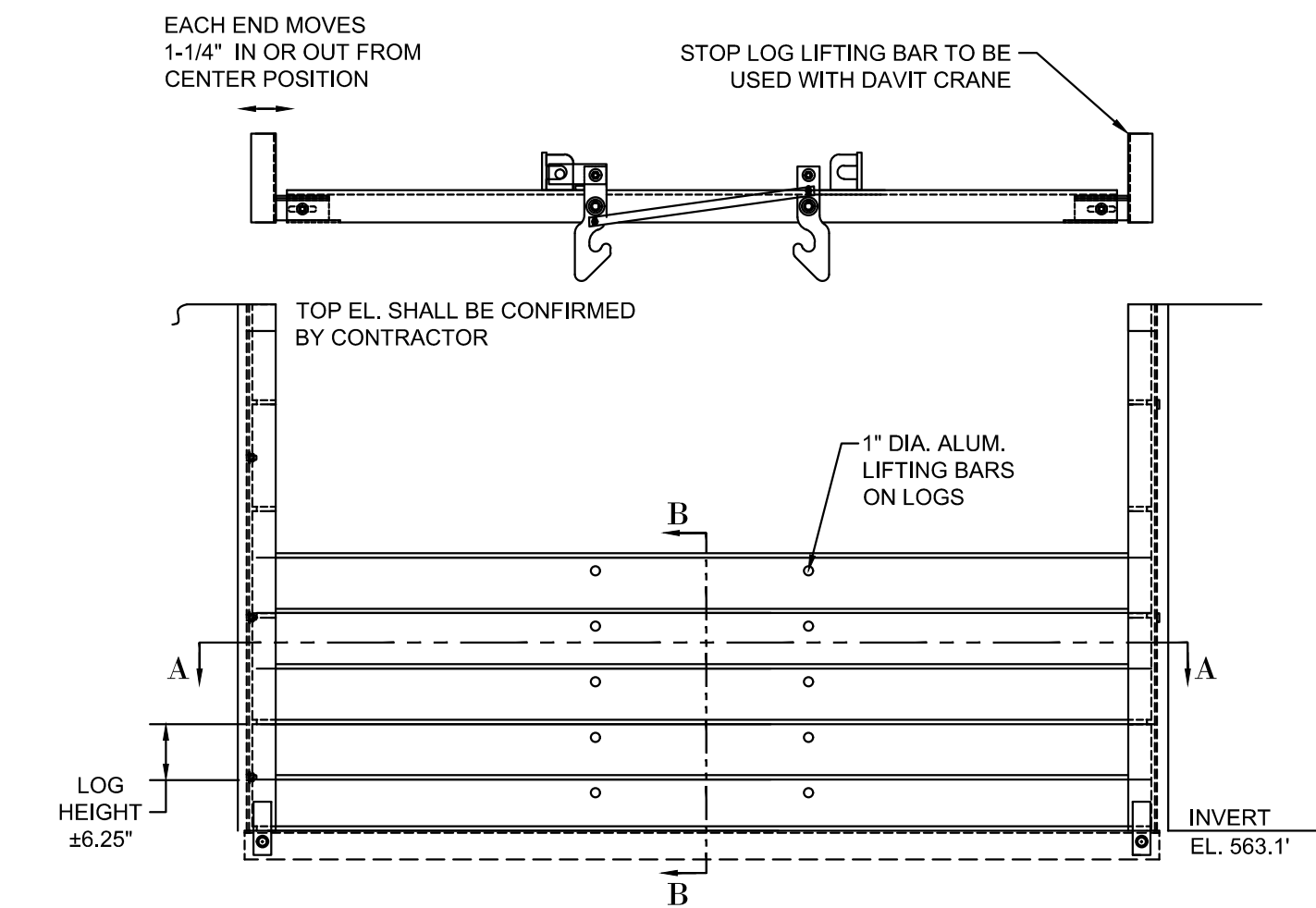
TURF REINFORCEMENT MAT (TRM) INSTALLATION
NOT TO SCALE



NOTES:
1. BRIDGE SHALL NOT EXTEND BELOW THE TOP OF TRAINING WALLS.
TYPICAL BRIDGE RENDERING PHOTO
NOT TO SCALE

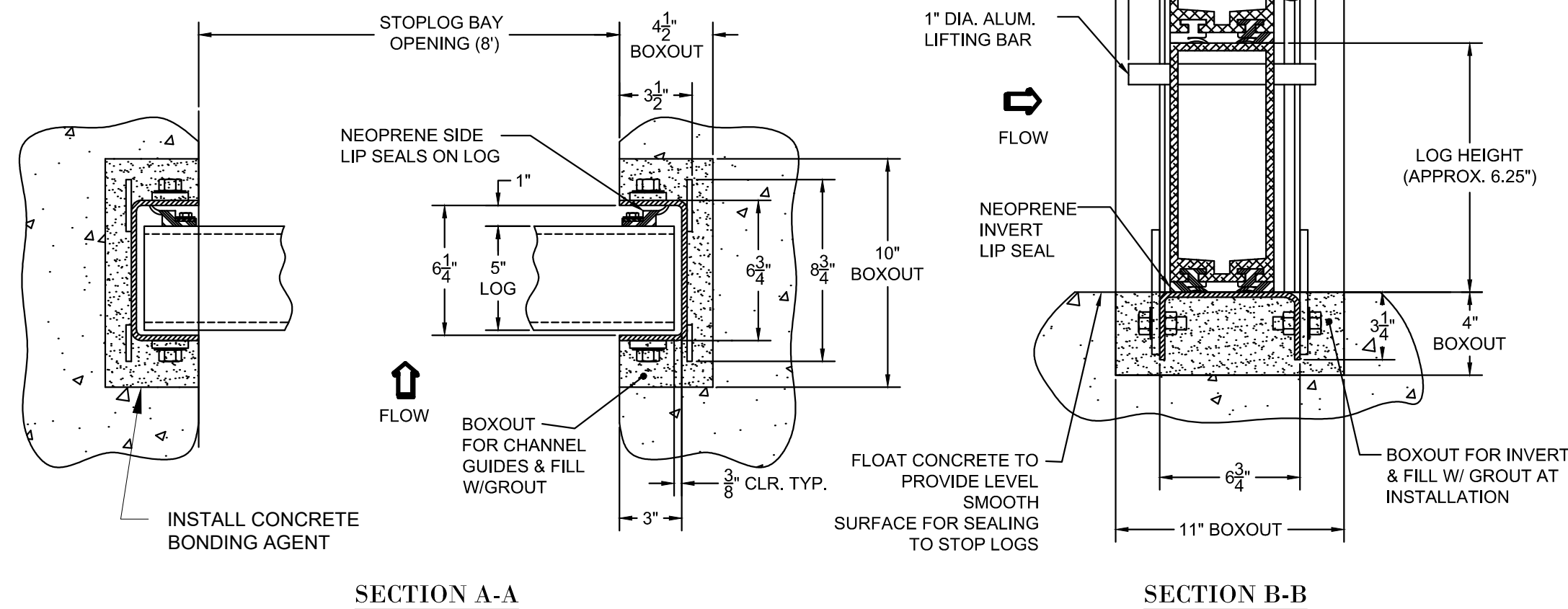


- NOTES:
1. THE TRM SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND STEPS OUTLINED BELOW ARE CONSIDERED MINIMUM REQUIREMENTS.
 2. PREPARE SOIL BEFORE INSTALLING THE TURF REINFORCED MAT (TRM) INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED PER THE TRM MANUFACTURER.
 3. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE TRM'S IN A MINIMUM 6" WIDE TRENCH WITH APPROXIMATELY 12" OF TRM'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE TRM'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF TRM'S BACK OVER SEED AND COMPACTED SOIL. SECURE TRM'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE TRM'S.
 4. ROLL THE TRM'S (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE PER MANUFACTURER'S RECOMMENDATION FOR HIGH VELOCITY FLOW. ALL TRM'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM(tm), STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
 5. THE EDGES OF PARALLEL TRM'S MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON TRM'S TYPE AND MANUFACTURER'S RECOMMENDATIONS.
 6. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE TRM'S.
 7. CONTRACTOR TO INSTALL & SECURE TO THE SPILLWAY CHANNEL WALLS PER MANUFACTURER'S RECOMMENDATIONS AS APPROVED BY THE ENGINEER.

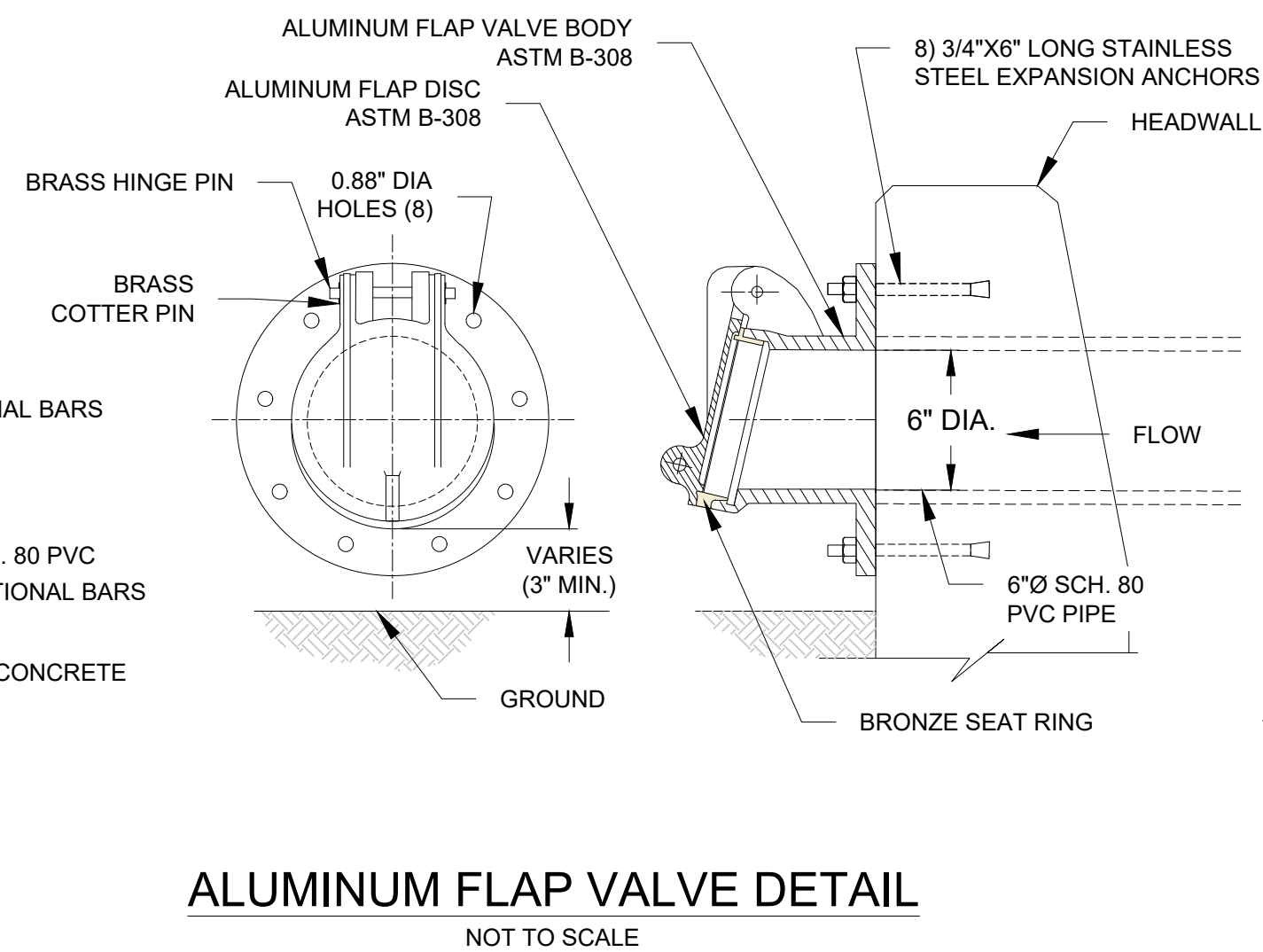


PRIMARY SPILLWAY STOP LOG BAY ELEVATION DETAIL
NOT TO SCALE

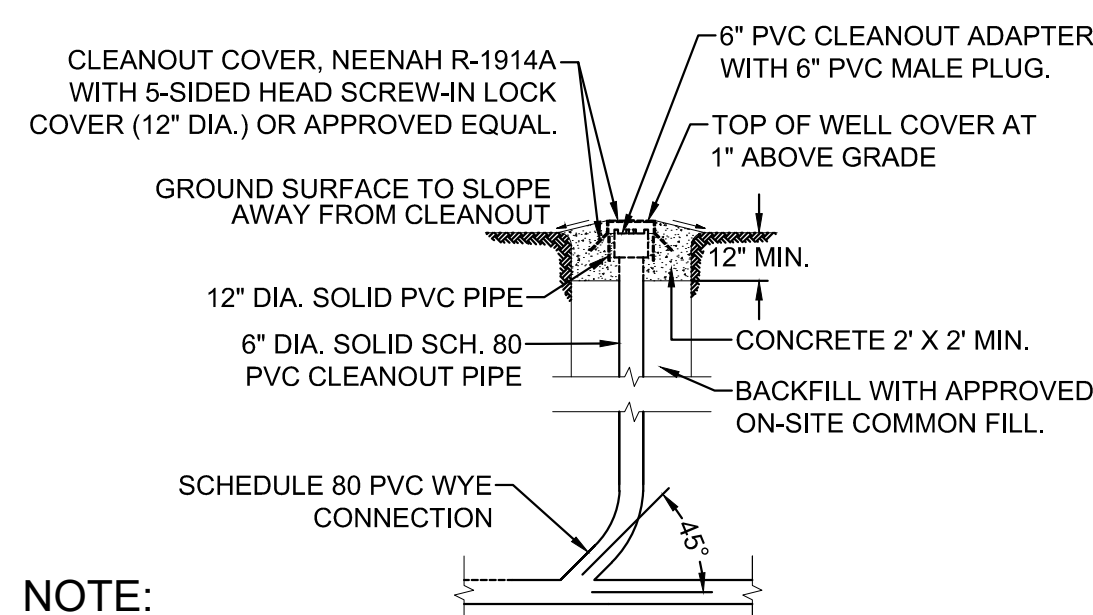
- NOTE:
1. CONTRACTOR TO DESIGN A LOCKING DEVICE TO PREVENT UNWANTED STOP LOG REMOVAL.



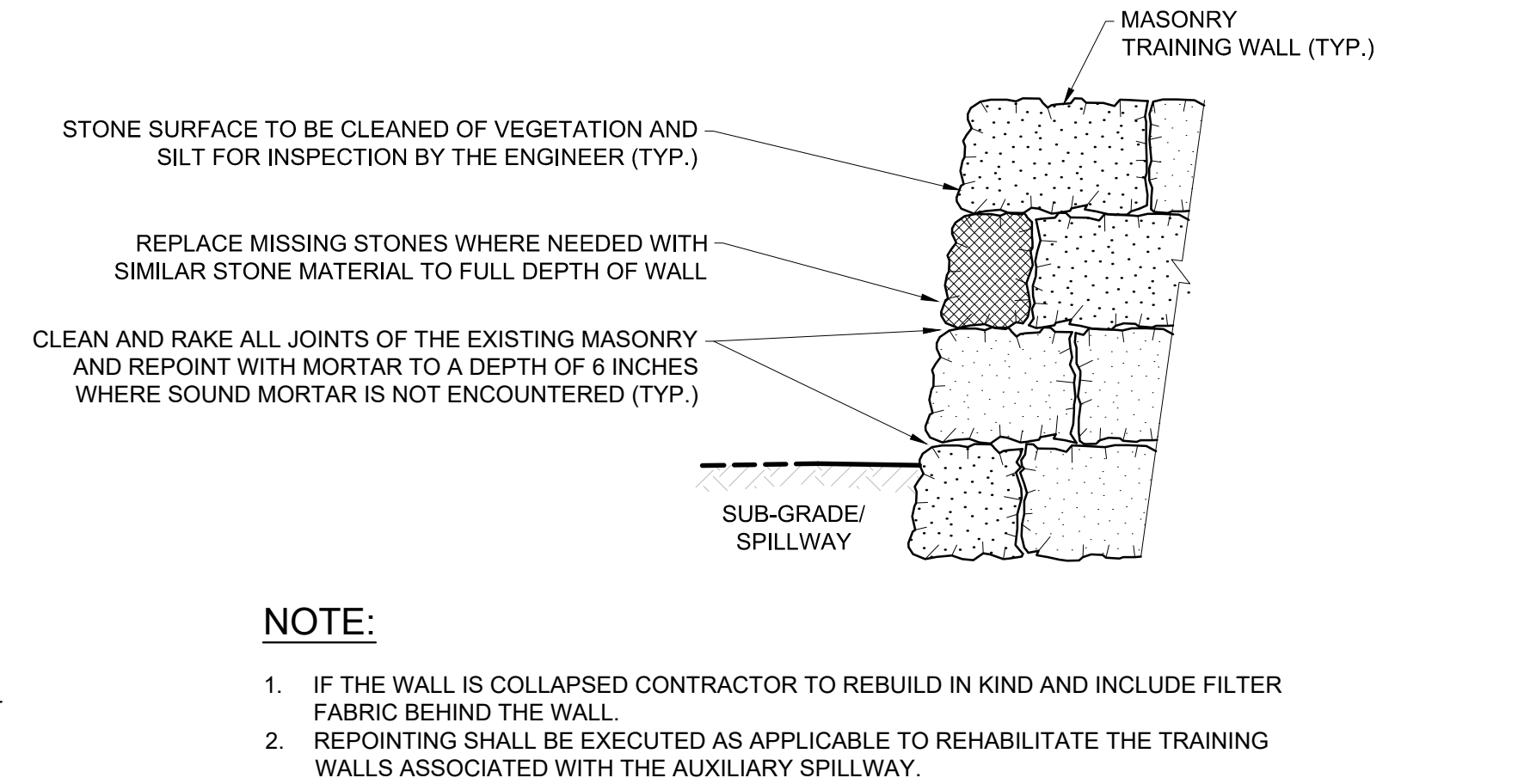
PRIMARY SPILLWAY STOP LOG DETAIL SECTIONS
NOT TO SCALE



ALUMINUM FLAP VALVE DETAIL
NOT TO SCALE

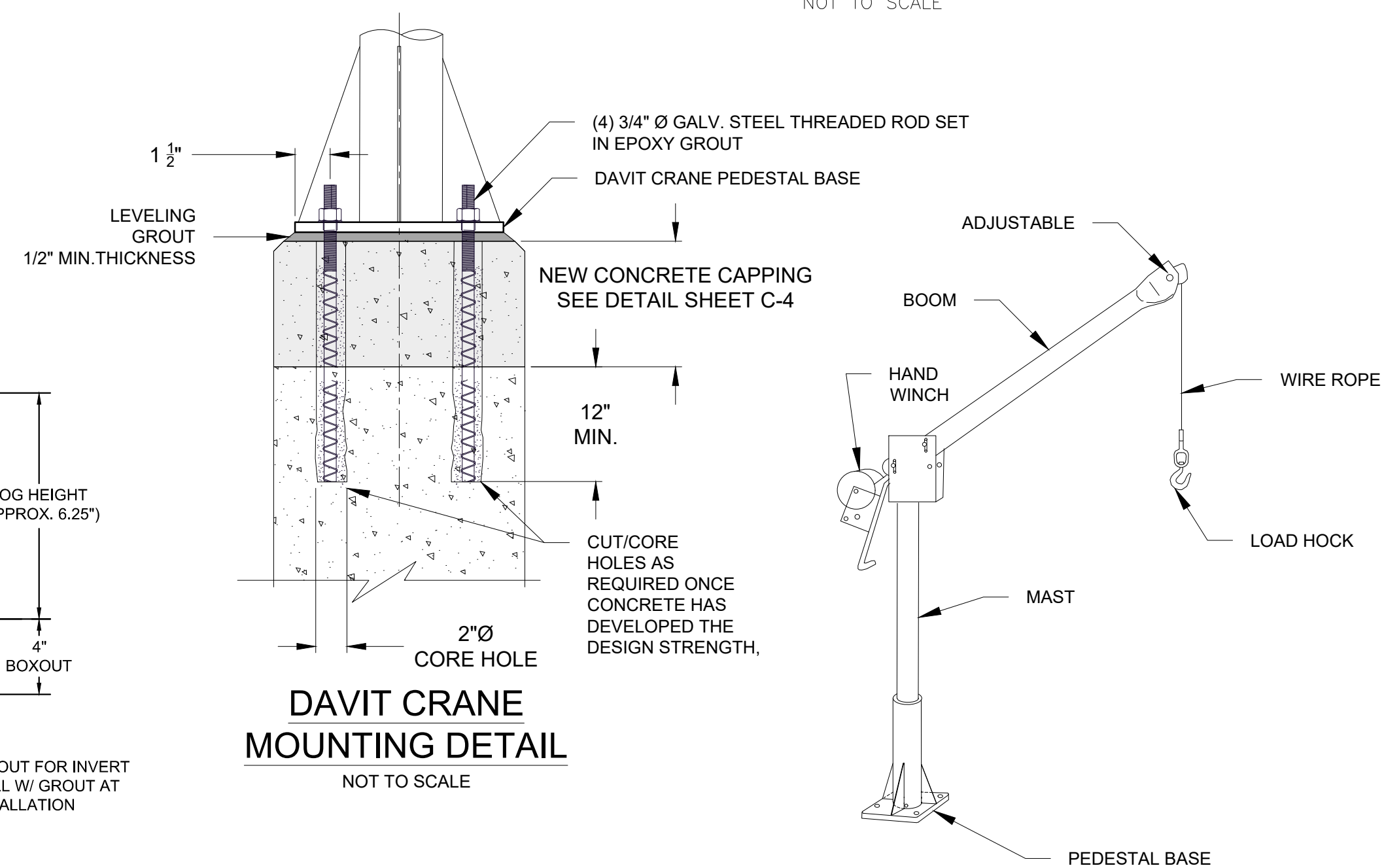


NOTE:
1. CLEANOUT NEAR STA. 4+50 SHALL HAVE CLEANING WYE CAPABLE OF CLEANING IN BOTH DIRECTIONS
TOE DRAIN CLEAN OUT DETAIL
NOT TO SCALE



NOTE:
1. IF THE WALL IS COLLAPSED CONTRACTOR TO REBUILD IN KIND AND INCLUDE FILTER FABRIC BEHIND THE WALL.
2. REPOINTING SHALL BE EXECUTED AS APPLICABLE TO REHABILITATE THE TRAINING WALLS ASSOCIATED WITH THE AUXILIARY SPILLWAY.

MASONRY REPOINTING AND RESTORATION DETAIL
NOT TO SCALE



DAVIT CRANE MOUNTING DETAIL
NOT TO SCALE

PORTABLE DAVIT CRANE DETAIL
NOT TO SCALE

BID DRAWINGS

0" 1"
BAR IS ONE INCH ON ORIGINAL DRAWING



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PINE ACRES LAKE DAM REHABILITATION PROJECT			
HAMPTON, CONNECTICUT			
MISCELLANEOUS DETAILS (SHEET 1 OF 2)			
PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: CT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION	
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DATE: MARCH, 2021	PROJECT NO. 01.0172972.00	REVISION NO.	

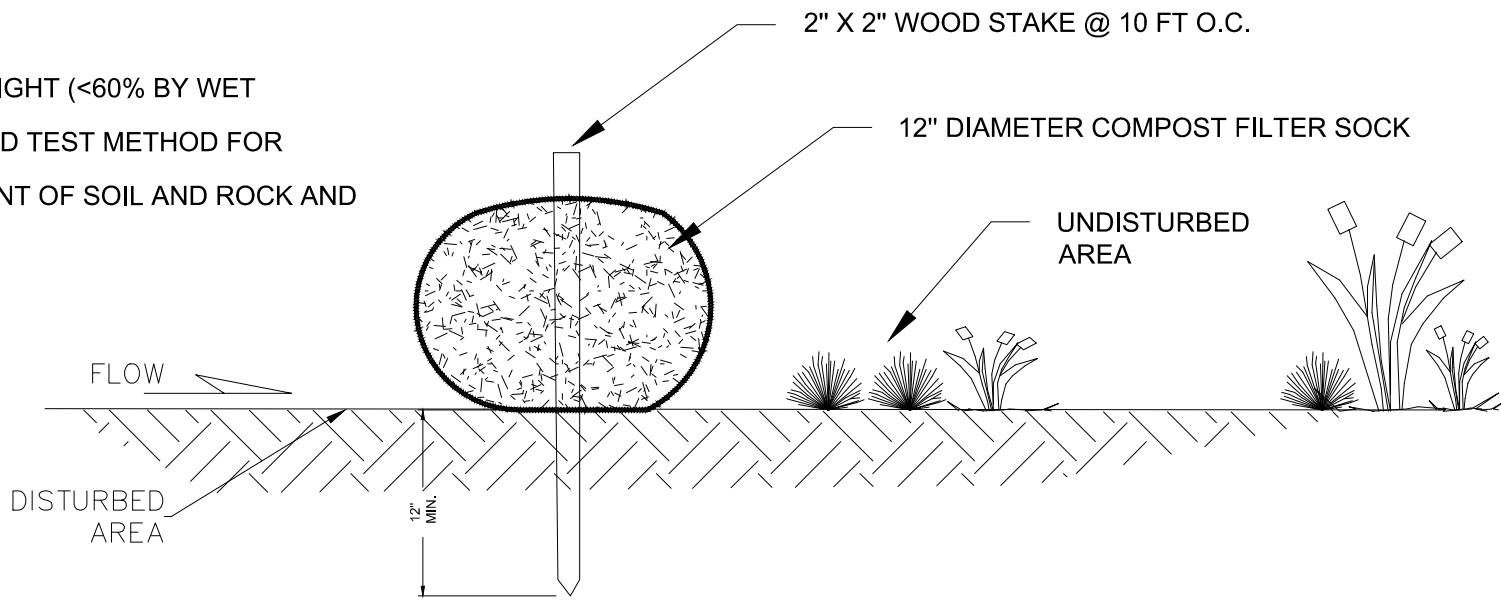
© 2012 — GZA GeoEnvironmental, Inc. G2A-\\g2aenv\jobs\170,000-179,999\172972\172972-00.dwg [Figures\CADD Drawings March 2021\01.0172972-F.dwg [09] March 08, 2021 — 12:40pm mirsaa.althodzie

NOTES:

1. FILTER SOCK SHALL BE MADE OF 100% ORGANIC HESSIAN FABRIC (BURLAP) OR BIO-DEGRADABLE 5 MIL HDPE (NO LONGER THAN 6 MONTHS). REPLACEMENT NEEDED AFTER 6 MONTHS.
2. ORGANIC MATTER CONTENT SHALL BE BETWEEN 20 -100% (DRY WEIGHT BASIS) AS DETERMINED BY ASTM D2974 (METHOD A) STANDARD TEST METHODS FOR MOISTURE, ASH, AND ORGANIC MATTER OF PEAT AND OTHER ORGANIC SOILS.
3. MOISTURE CONTENT SHALL BE <150% BY DRY WEIGHT (<60% BY WET WEIGHT) AS MEASURED BY ASTM D2216 STANDARD TEST METHOD FOR LABORATORY DETERMINATION OF WATER CONTENT OF SOIL AND ROCK AND ASTM D2974 (CITED ABOVE).
4. PARTICLE SIZE IS MEASURED BY SIEVING SHALL BE AS FOLLOWS:

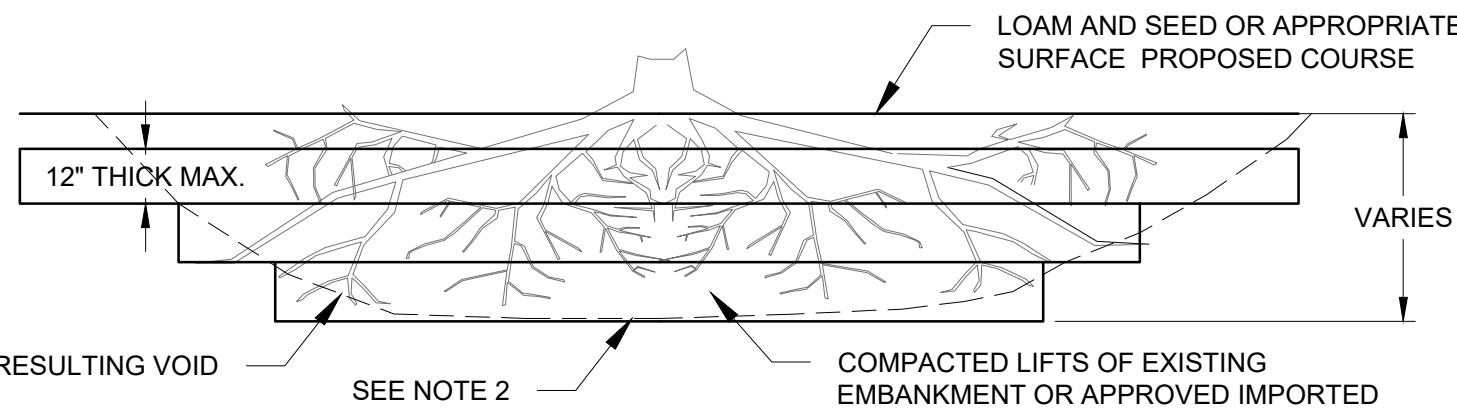
SIEVE SIZE	% PASSING
75MM	100%
19MM	70-100%
#4	30- 75%
#20	20-40%

NO PARTICLE MAY BE LONGER THAN 150MM
5. SOLUBLE SALTS SHALL BE <5.0 MMHOS/CM (DS/M).
6. THE PH SHALL BE BETWEEN 5.5 AND 8.0.
7. FILTER SOCKS MUST BE PLACED PARALLEL TO CONTOUR WITH BOTH ENDS OF THE SOCK EXTENDED UPSLOPE AT A 45 DEGREE ANGLE TO THE REST OF THE SOCK TO PREVENT END-AROUNDS.
8. THE CONTRACTOR SHALL MAINTAIN THE FILTER TUBES IN A FUNCTIONAL CONDITION AT ALL TIMES, INCLUDING INSPECTIONS AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
9. FOR REMOVAL, THE CONTRACTOR SHALL RAKE OUT SO THAT FILTER MATERIAL IS NO GREATER THAN 3" IN DEPTH ON SOIL SUBSTRATE.



COMPOST FILTER SOCK DETAIL

NOT TO SCALE

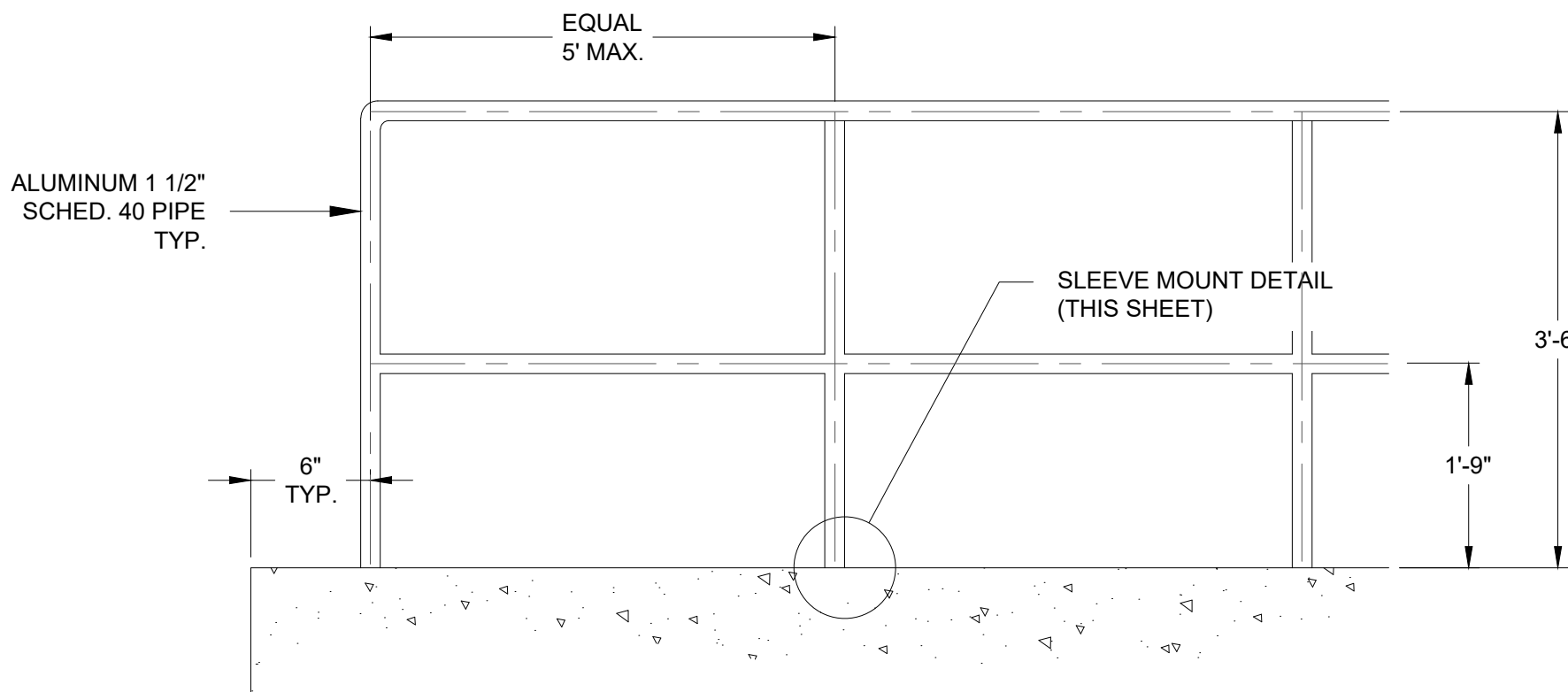


NOTES:

1. CONTRACTOR TO FILL ALL VOIDS RESULTING FROM STUMP REMOVAL
2. (1/2-INCH MAXIMUM DIAMETER TO REMAIN OUTSIDE THE CONE OF THE RESULTING VOID).

ROOT BALL REMOVAL & BACKFILL DETAIL

NOT TO SCALE

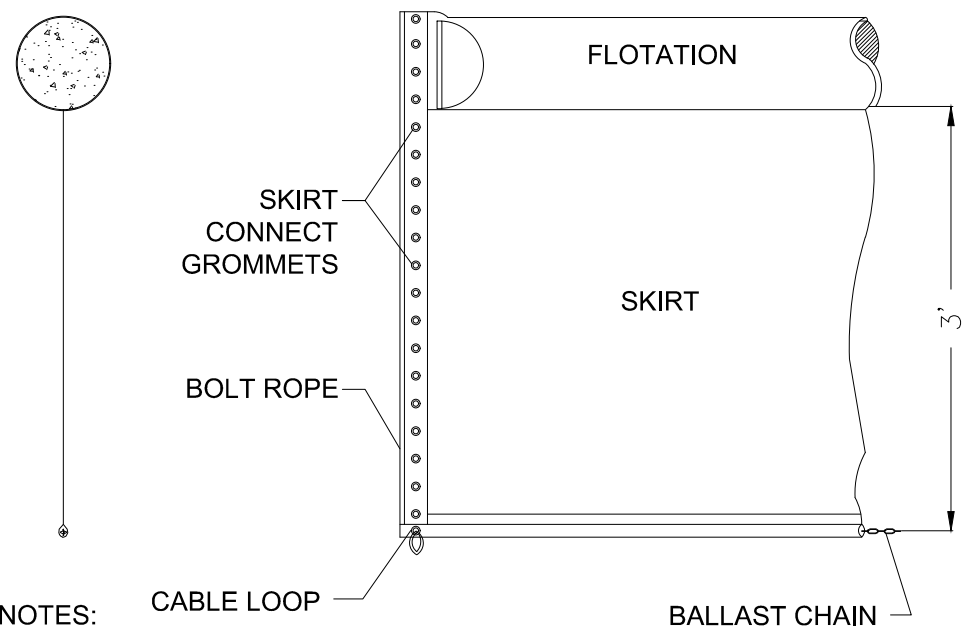


RAILING NOTES:

1. CONTRACTOR SHALL TAKE FIELD MEASUREMENTS PRIOR TO FABRICATION TO ACCOMDATE EXISTING CONSTRUCTION. NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO SUBMITTING SHOP DRAWINGS.
2. HANDRAILS, GUARDRAILS, POSTS, AHCHORAGES, AND PICKETS SHAL BE DESIGNED TO ACCEPT THE MINIMUM LOADS REQUIRED BY THE LOCAL BUILDING CODE.
3. SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS PREPARED AND STAMPED BY A PROFFESIONAL ENGINEER FOR REVIEW AND APPROVAL AND DEMONSTRATING CONFORMANCE WITH LOCAL BUILDING CODE.
4. COATING: SEE PROJECT TECHNICAL SPECIFICATIONS.

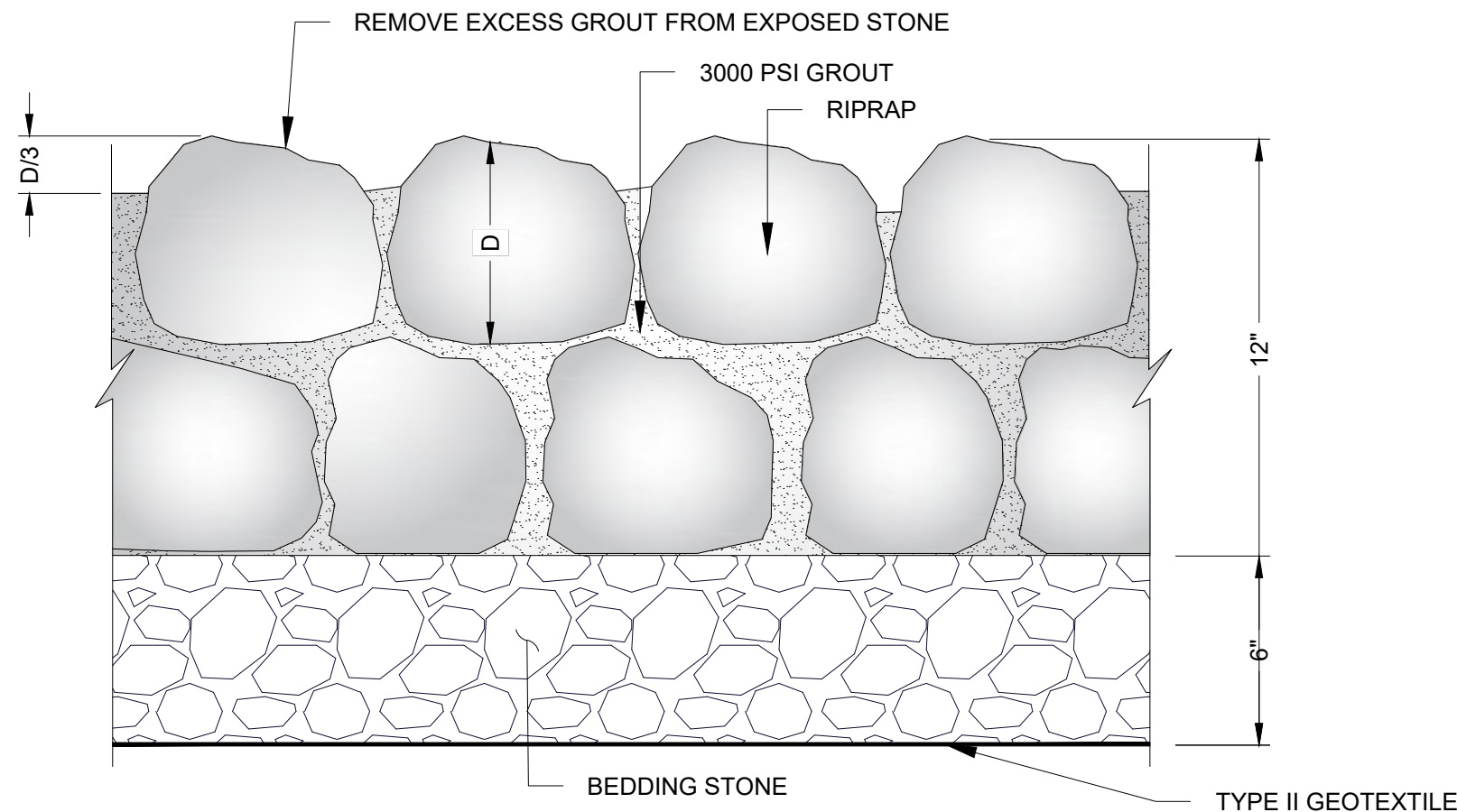
DOWNSTREAM PRIMARY AND AUXILIARY SPILLWAY TRAINING WALLS RAILING

NOT TO SCALE



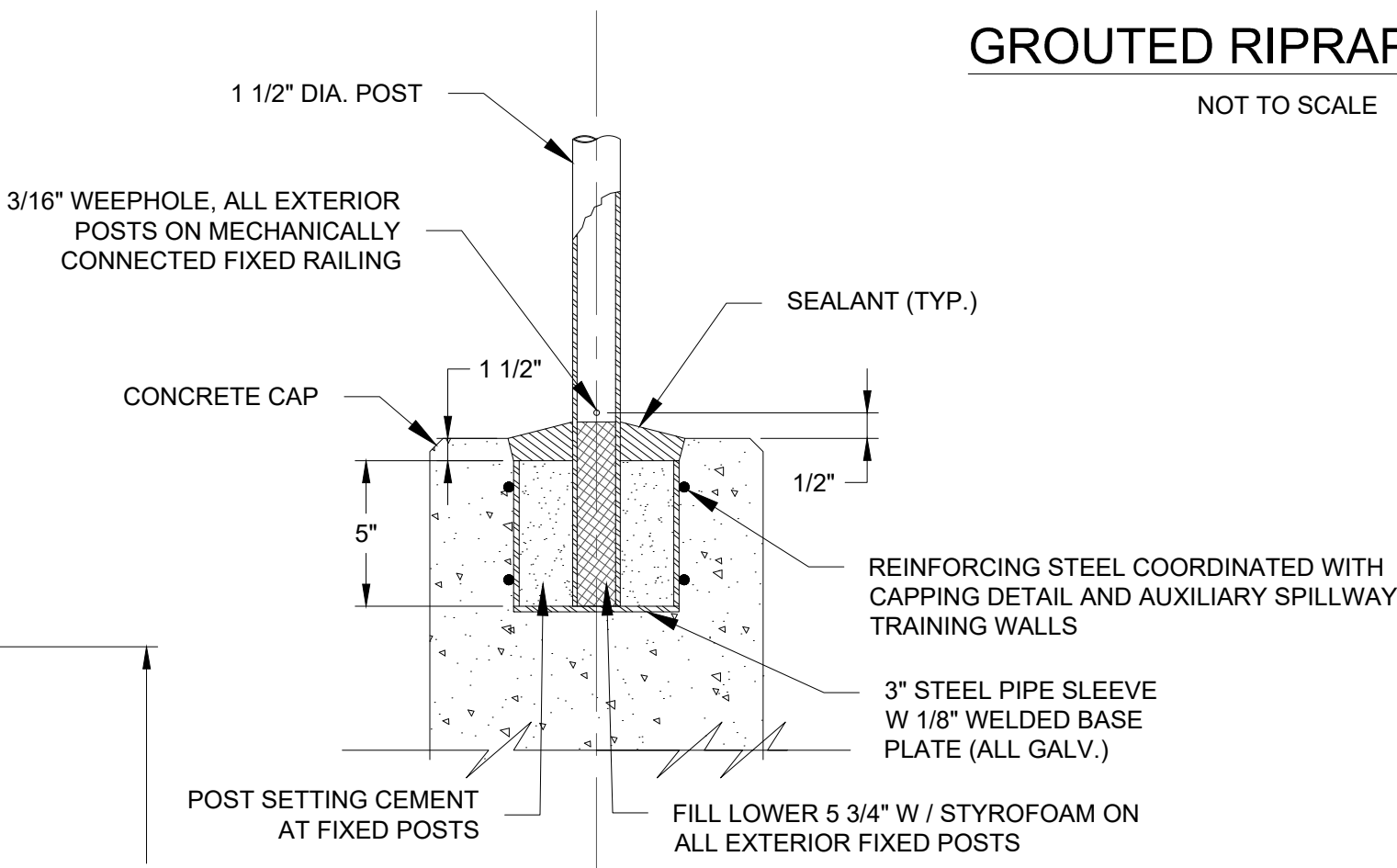
TURBIDITY CURTAIN DETAIL

NOT TO SCALE



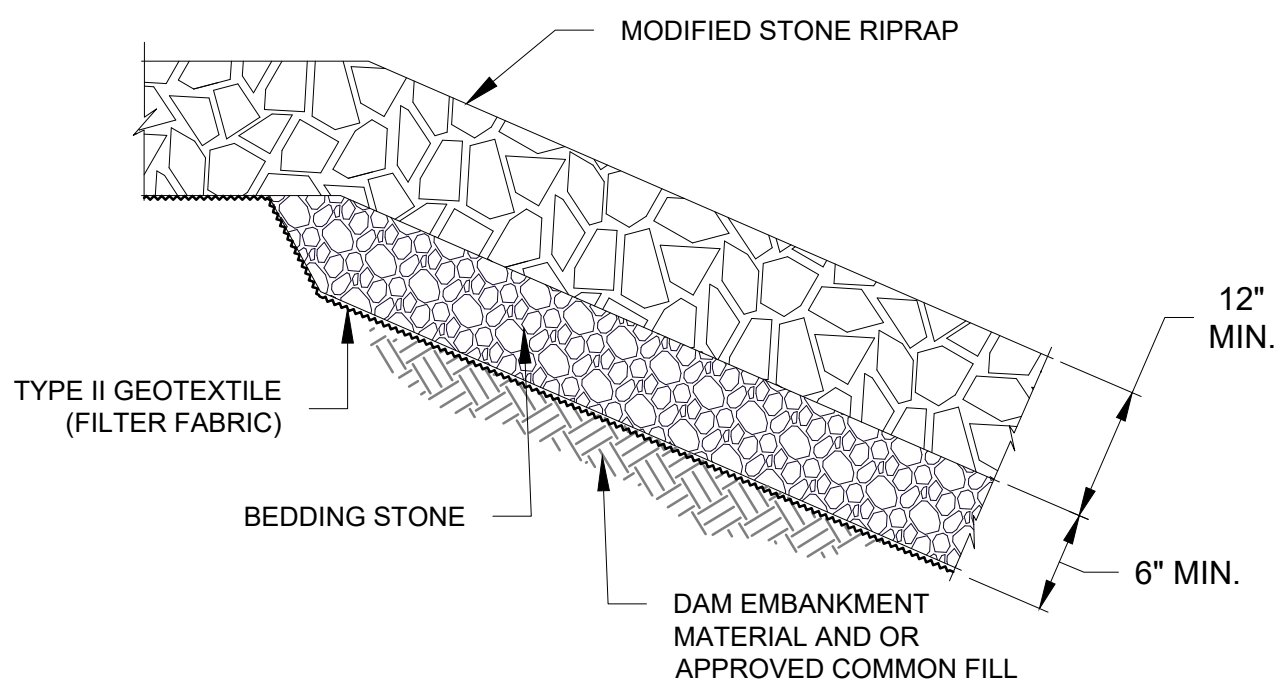
GROUTED RIPRAP DETAIL

NOT TO SCALE



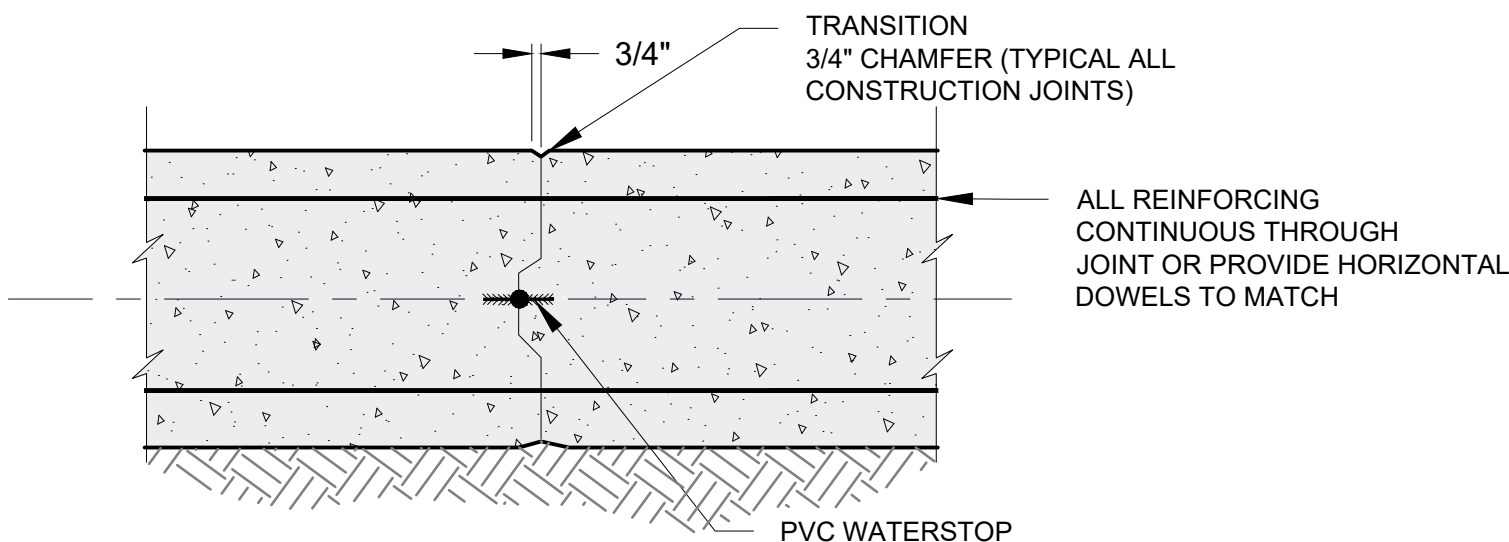
SLEEVE MOUNT

NOT TO SCALE



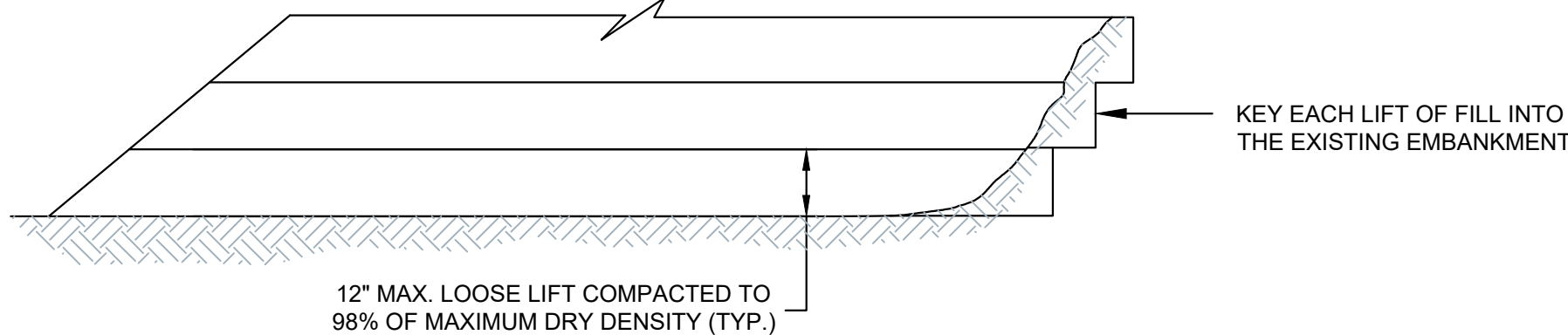
RIP RAP DETAIL

NOT TO SCALE



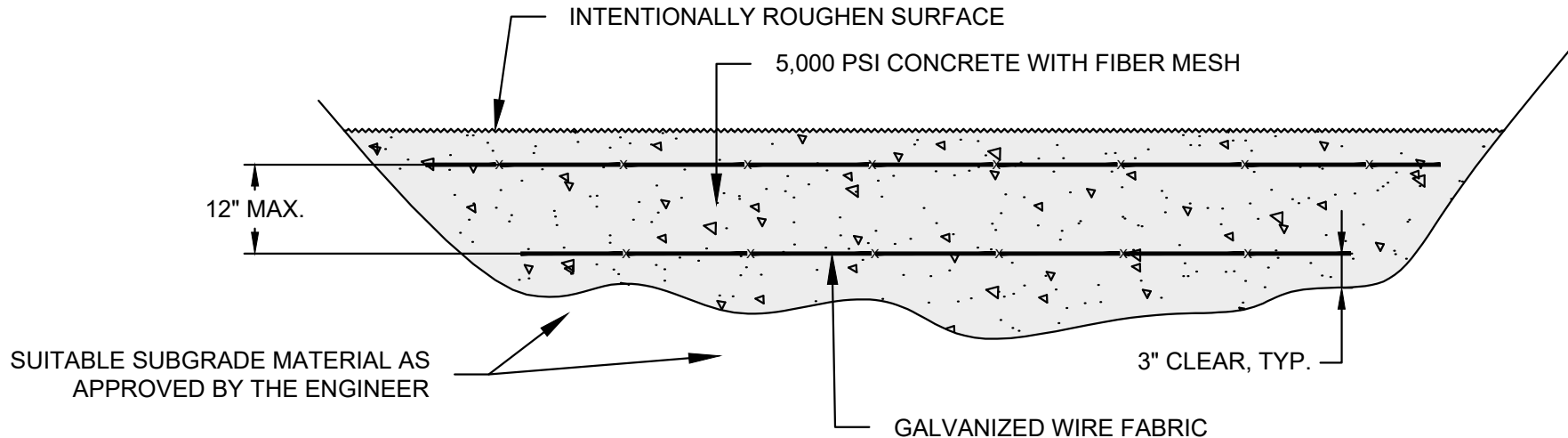
TYPICAL CONSTRUCTION JOINT DETAIL

NOT TO SCALE



PLACEMENT OF FILL MATERIALS

NOT TO SCALE

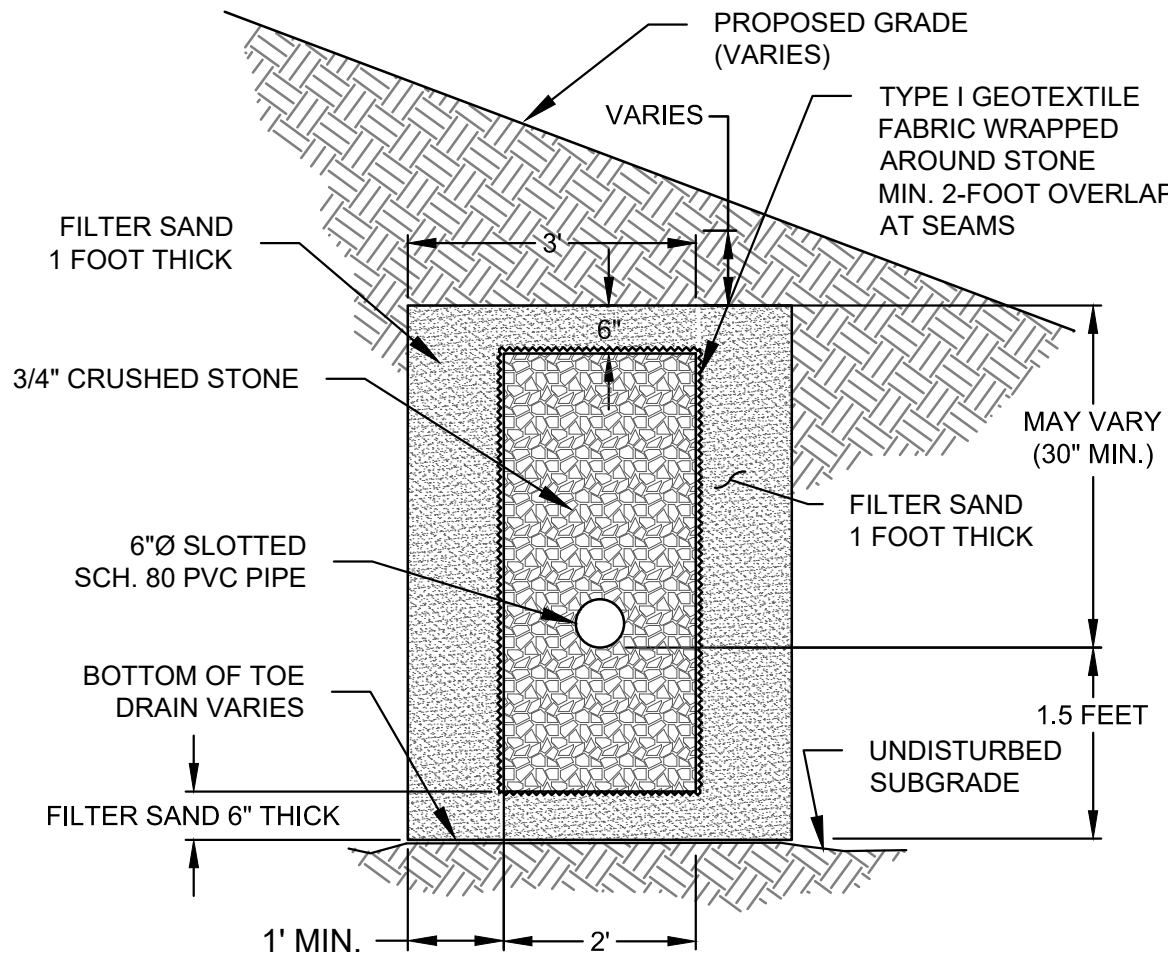


NOTE:

1. WATERSTOPS SHALL BE PROVIDED WHERE REQUESTED BY THE ENGINEER.

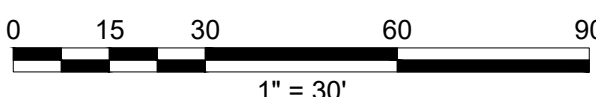
MASS CONCRETE DETAIL

NOT TO SCALE



TOE DRAIN DETAIL

NOT TO SCALE



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PINE ACRES LAKE DAM REHABILITATION PROJECT

HAMPTON, CONNECTICUT

MISCELLANEOUS DETAILS (SHEET 2 OF 2)

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